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**A STUDY OF THE HEALTH INTERESTS AMONG FRESHMAN STUDENTS
IN SELECTED SECOND CLASS HIGH SCHOOLS OF MONTANA**

by

Lynn S. Stein

**B.A., State Teachers College
Dickinson, North Dakota, 1937**

**Presented in partial fulfillment
of the requirements for the degree of
Master of Arts**

Montana State University

1952

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Chairman of the Board of Examiners

London B. Castle
Dean of the Graduate School

Date August 12, 1952

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INTRODUCTION

In a survey conducted by the Montana State Department of Public Instruction in 1950, it was found that of the fifty-three second class high schools reporting, over one-half did not have a separate course of health instruction. Twenty-four of the fifty-three schools reporting had a separate or special course in health instruction, twenty-three included health in with other courses, and six indicated no planned program.¹ State laws require the teaching of health, physical education, and recreation for high school freshmen and sophomores, but make no provision for a separate course in health instruction.²

A well organized health program will give proper emphasis to direct health instruction as well as supplementary or incidental instruction in other areas. Specific health courses should be provided in secondary schools with a time allotment of a daily period for at least one semester during either the ninth or tenth grade, and a similar amount of

¹Mrs. Jane Duffalo Dew, "A Survey of Health, Physical Education, and Recreation," (Helena, Montana: Unpublished Survey of the State Department of Public Instruction, 1950-51).

²Mary M. Condon, Superintendent of Public Instruction, School Laws of the State of Montana, (Helena, Montana: State Department of Public Instruction, 1949), p. 23.

time in the eleventh or twelfth grades. Health courses should be on a par with courses in other areas of instruction in regard to amount of credit given, size of classes and classrooms. Courses of study in health should be carefully planned and the material adapted to the needs, interests, and capacities of students.³

Pupil interests are recognized as one of the finest possible motivating forces in learning, because interests are a source of spontaneous and eager curiosity about the world and its problems. Needs have a similar effect upon the quality of experience. Whether they arise from the psychological hungers of belonging, achievement, affection, or from the pressures of society for group safety, sanitation, or from participation in community health programs, they are all capable of building tensions in people. These tensions or drives may become so strong, that in the process of their release and satisfaction optimum conditions for learning result. Another important influence upon learning is the degree of growth and development a child has achieved in direct relation to his needs and interests.⁴

Since there is still need for curriculum development for health instruction in Montana as indicated by the survey

³Report of the National Committee on School Health Policies formed by the National Conference for Cooperation in Health Education. Suggested School Health Policies, 1946, pp. 15-17.

⁴The Denver Public Schools, Health Interests of Children (Denver: Publication of the Denver Public Schools, 1942), pp. iii-iv.

conducted by the State Department of Public Instruction, and since interests of pupils cannot be overlooked as a vital factor in the learning process, the author felt that a study of health interests of students in Montana high schools would be a valuable contribution to the curriculum planning program in the state high schools.

CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

I. THE PROBLEM

Statement of the problem. The purpose of this study is to determine the health interests of freshman students in selected second class high schools of Montana, and to evaluate these interests for the purpose of establishing a basis for curriculum planning in health. The following questions arise in seeking the solution to this problem: (1) What major areas of health should be considered important at the freshman level as indicated by literature and experts in the field? (2) What are the health interests of freshman students in the selected second class high schools of Montana? (3) To what extent do the health interests of freshman students of Montana differ from the health interests of students as shown in similar studies in other states? (4) In light of the findings of this survey what recommendations can be made that would be of value in planning a course of study in health instruction?

Importance of the study. Much has been written about the use of student interest in the development of health curricula. It has been pointed out in the Denver Study that

method and content have generally been divorced from the interests and concerns of the children. Health programs in many schools lack articulation between the different grades, being so uncoordinated that some of the most meaningful learnings are often left to chance.¹

A review of the literature revealed that further research must be done before the students' interests can be fully evaluated as bases for the establishment of health curricula. The need for this type of research has been pointed out by (1) The Denver Study,² (2) The Oregon Study by Hoyman,³ (3) Lantagne's Study,⁴ and (4) a study by Byrd.⁵

II. DEFINITIONS OF TERMS USED

Health. There are numerous definitions for health. As used by Williams and Brownell, health is defined as "That quality of life that enables the individual to live most and

¹The Denver Public Schools, Health Interests of Children, (Denver: Publication of the Denver Public Schools, 1942), p. 1.

²Loc. cit.

³H. S. Hoyman, Health Guide Units for Oregon Teachers (Salem, Oregon: E. C. Brown Trust, University of Oregon Medical School, 1945), p. 11.

⁴Joseph E. Lantagne, "An Analysis of the Health Interest of Three Thousand Secondary School Students," The Research Quarterly, 21:34, March, 1950.

⁵Oliver E. Byrd, "Health Problems of Significance for Course and Curriculum Construction," The Research Quarterly, 21:3, March, 1950.

and to serve best."⁶

Some people define "health" as the mere absence from disease or infirmity. The weakness in this definition of health lies in the failure to take into consideration each individual and the social forces that promote superior levels of living and optimum states of being. "To live most and serve best" carries with it connotations that the health problem of every person is to develop and maintain vigor and vitality, to acquire interests and habits in wholesome ways of living, to meet the demands of life efficiently with energy and satisfaction.⁷

Interest. "Those interested in any particular affair, taken collectively; as, the iron interest."⁸ As used in this study, it shall be taken collectively; as, the health interest.

Selected Second Class Schools. The Montana Educational Directory includes those schools within second class school districts that have a population of one thousand or more and less than eight thousand; employ a superintendent

⁶Jesse Feiring Williams, and Clifford Lee Brownell, The Administration of Health Education and Physical Education (Philadelphia: W. B. Saunders Company, 1951), p. 5.

⁷Loc. cit.

⁸Webster's Collegiate Dictionary, fourth edition, (Springfield, Mass.: G. and C. Merriam Company, 1935), p. 523.

who has at least three years experience in public school work; they are controlled by a board of five members.⁹ The word "selected" as used in this study refers to those schools that maintain a separate or special class in health instruction as determined in the Montana survey.

Limitations. Several factors limited the scope of this study. They were: (1) The distances between second class schools of Montana made it impossible for the author to personally administer the survey to the students in each school. (2) Time required for the tabulation, and cost of extending the survey limited this study to freshman students. (3) The application of the questionnaire was confined to those twenty-three schools that maintained a separate or special class in health instruction. (4) The questionnaire was limited to sixty-six items that could be checked during one class period, so as not to impose too heavily upon the time taken from the regular class.

III. ORGANIZATION OF REMAINDER OF THE THESIS

Division of remainder of the thesis. The following material will give the reader a brief description of the remainder of this study.

Chapter two contains procedures in this study. First

⁹Mary M. Condon, State Superintendent of Public Instruction, Montana Educational Directory (Helena, Montana: State Department of Public Instruction, 1951-52), p. 7.

a background of similar research is presented that will bring the reader up to date on the problem of determining the health interests of children. The manner in which the areas of interest were compiled, construction of the checklist, selection of respondents for this study, information for administering the checklist and manner of tabulation are presented.

Chapter three reveals the health interests of Montana high school freshmen and presents, in tabulated form, rank orders of areas and topics of interest.

A comparison of the findings in Montana with those of similar studies in other states will be shown in the fourth chapter.

The final chapter contains a summary of the findings of this study along with recommendations.

CHAPTER II

METHOD OF PROCEDURE

The basis for the questionnaire used in this study was determined from a review of literature containing similar studies concerned with student interest in health.

Review of similar research. Four studies were used in providing the information upon which the check list in this study was based. Two of these sources were actual studies to determine the health interests of children. A third presented information from the compilation of thousands of articles in literature that pertained to health. The fourth defined areas of health in terms of actual problems of health found in communities. These four studies are discussed in the following paragraphs.

A certain amount of disagreement existed as to the total number of health areas and to the specific content of these areas of health. It was found, however, that there was a degree of relationship in the health interest areas among these various studies that made a compilation and comparison possible.

The study by Oliver Byrd, of Stanford University,

was made with a purpose of determining health problems of significance for course and curriculum construction. The following list of major health problems was prepared by Byrd from the subject matter of over ten thousand scientific and public health articles appearing in medical, public health, and allied scientific journals from 1942 to 1948. They are: (1) health as a social accomplishment, (2) health as a social problem, (3) nutrition and health, (4) excretion and health, (5) exercise and body mechanics, (6) fatigue and rest, (7) mental health and disease, (8) heredity and eugenics, (10) chronic and degenerative disorders, (11) habit-forming substances, (12) the care of special organs, (13) safety, (14) health and physical environment, (15) scientific health services and facilities, (16) family health, (17) school health, (18) occupational health, (19) community health services, (20) international health, and (21) trends and possibilities.¹

Joseph E. Lantagne, of the University of California, made an analysis of the health interest of three thousand secondary school students in California,² using Byrd's list of major health areas.

According to H. S. Hoyman, "The framework of the new health curriculum for the Oregon schools has been built

¹Byrd, op. cit., 21:4-10.

²Lantagne, loc. cit.

around the major health problems that are common to Oregon communities." Hoyman defines areas of study in health in terms of the health problems of the community as follows: (1) communicable diseases, (2) noncommunicable diseases, (3) accidents and sudden illness, (4) acute and chronic fatigue, (5) lack of rest, relaxation, and sleep, (6) nutritional disturbances and deficiencies, (7) problems of exercise and "physical fitness," (8) mental and emotional disturbances, (9) elimination of body wastes, (10) protection from the elements, (11) physical defects, (12) use of drugs, stimulants, narcotics, alcohol, and tobacco, (13) occupational hazards, (14) health problems involved in courtship, love, marriage, and parenthood, (15) home, school, and community health and sanitary conditions, and (16) selection and use of health products and services. Hoyman further stated:

The Oregon health-instruction plan is to meet the individual student needs and to capitalize on student interests without making these the sole criteria in developing the health curriculum.³

The Board of Education of the Denver Public Schools, sought to identify broad areas of health within which the interests and needs of children might fall. This was accomplished by consultation with competent people in the field of health and health education, and by a thorough study of textbooks, recent courses of study, and reports of health

³Hoyman, op. cit., pp. 10-11.

research. Eighteen areas were used as a basis for construction of a check list with which to survey the health interests of Denver Public School children. The areas as described in the Denver Study are: (1) keeping physically fit, (2) group health, (3) cause of disease, (4) protection from disease, (5) structure and function of the body, (6) dental health, (7) good eating habits, (8) selection and composition of food, (9) stimulants and narcotics, (10) rest and relaxation, (11) personal appearance, (12) personality development, (13) social health, (14) heredity and eugenics, (15) first aid, (16) home nursing, (17) safety, and (18) vocations in health.⁴

Comparison and compilation of health areas suggested in the studies reviewed. The preceding discussion concerning the four studies by Byrd, Hoyman, et. al., reveals common agreement by three of the studies, on the following areas: (1) heredity and eugenics, and (2) occupational health. Two separate areas, safety and first aid, were combined into one area, (3) safety and first aid. Personal appearance and personality development were combined in the same manner.

One area called home, school, and community health and sanitary conditions, as given by Mr. Hoyman, appeared to be too inclusive. It was broken down into three areas, entitled: (4) school health and sanitation, (5) family health,

⁴The Denver Study, op. cit., pp. 3-4.

and (6) health and physical environment.

The area, (7) fatigue and rest, given by Byrd, was suggestive for the grouping of several other areas under one title. They were: acute and chronic fatigue, rest and relaxation, and relaxation and sleep. This same plan was utilized for determining the remaining areas where there was agreement as to general content, but the actual wording was not in complete accord. These areas are: (8) narcotics, stimulants, and habit-forming substances, (9) mental health and disease, (10) infections and protection from disease, (11) care of special organs, (12) keeping physically fit, (13) nutrition and health in the selection and composition of food, (14) health services and facilities for school and community, (15) modern trends in health, (16) health and physical environment, and (17) chronic and degenerating disorders.

Construction of the check list. Sixty-six items comprise the check list. These items represent a breakdown of the preceding seventeen areas of health interest. The items were selected from the Lantagne and Denver Studies, since Byrd and Hoyman do not list any items under their major areas of health. Permission was not obtained from Joseph E. Lantagne to use his items of health interest inasmuch as he encouraged and suggested they be tried by people interested in curriculum development from the standpoint of student

interests in the field of health. Permission to use items from the Denver Study was secured from the Board of Education, Denver, Colorado. A copy of this letter can be found on page 68 of the appendix.

The number of items was limited to sixty-six because it was found that this was approximately the number of items that could be checked in one class period by the average freshman student. Items in the check list, for the most part, were taken from the Denver and Lantagne studies. Concentrated effort was made to include items of greatest interest to freshmen, as determined from both studies. A few items ranking low in interest were interspersed throughout the check list for comparison, to see if the same items rated low in the interest of Montana freshman students.

To the left of each item in the check list were provided three blanks listed as like, dislike, and indifferent. The intent of the author was that each student check one of the three blanks according to his or her reaction after having read each specific item. Space was provided within each major area of health interest for items of interest to the student, which were not included in this study. A list of these suggestions can be found on page 78 in the appendix.

There were no provisions made on the check list for the name of the student, as the author felt that there was no apparent need to identify students other than by sex.

Trial and revision of the check list. The check list was submitted for examination by instructors in the eighth and ninth grades at Sunburst, Montana, for words that might be beyond the comprehension of the average freshman high school student.

With the consent of the administrative staff of the Sunburst High School, the check list was administered by the author to the freshman students to determine reading comprehension and the time required to check the questionnaire. The time needed by this experimental group was thirty to forty-five minutes. Minor revisions were made in view of the suggestions by the instructors and students from the trial application. The final check list and instructions for administering, as they were submitted for the survey, are on page 73 in the appendix.

Selection of schools and administering of the check list. Henry Lester Smith, of Indiana University, says this about the purpose of the questionnaire:

The purpose of the questionnaire is to obtain the responses and reactions of a large number of individuals who could not possibly be interviewed personally within as short a time as should be used for such a study.⁵

This is quite true of the 542 check list returns obtained from the students in widely scattered second class

⁵Henry Lester Smith, Educational Research, Principles and Practices, (Bloomington, Indiana: Educational Publications, 1944), p. 181.

schools in Montana. The respondents for this study, previously mentioned, were selected from those twenty-three second class high schools having a separate or special class in health instruction. A letter stating the need and purpose of this study, and requesting participation, was sent to the principal of each of the schools selected. Included with this letter was a reply form for the principal to designate the freshman enrollment of that school and his willingness to cooperate in the survey. A copy of this letter is appended on page 70.

Sixteen of the twenty-three schools consented to cooperate in this survey. They were: Belgrade, Belt, Choteau, Cut Bank, Darby, Fairfield, Forsyth, Fort Benton, Glasgow, Hamilton, Harlowton, Hysham, Stocket-Sand Coulee, Scoby, Shelby, and Victor. Page 71 of the appendix shows a map of Montana showing the geographical distribution of the schools in this survey.

Each cooperating school was sent copies of the check list, including a copy for the instructor's file, with instructions for administering the questionnaire.

Tabulation of the responses to the check list. Each of the sixty-six items were tabulated as to whether the student liked, disliked, or was indifferent toward the statement. These items were then listed in rank order of frequency of response indicating interest. To avoid error a recheck

was made of each of the tabulated totals. The analysis of these responses is treated in detail in Chapter III.

CHAPTER III

AN ANALYSIS AND INTERPRETATION OF THE FINDINGS

I. VALIDITY OF QUESTIONNAIRES

Adequacy of response. In a publication by the American Association for Health, Physical Education, and Recreation, there is doubt attached to findings based on scant returns to a questionnaire. Adequate responses vary with the nature of the study, but returns of over 50 per cent are generally considered satisfactory.¹ Henry L. Smith, of the University of Indiana, said this about questionnaire surveys confined to a small number of schools, "With hundreds of answers received from different individuals, responses which might not be wholly reliable when only a few are considered may be accepted as dependable."²

Response to this study. Sixteen of the twenty-three second class high schools that had a special or separate class in health instruction cooperated in this study for a

¹Gladys M. Scott, et. al., of the Steering Committee, Research Methods Applied to Health, Physical Education, and Recreation, (Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1947), p. 345.

²Henry Lester Smith, Ibid., p. 180.

return of 69.57 per cent. Of the seven schools not co-operating or replying, one failed to participate because the principal felt the parents would object to the questions concerning sex. This is probably with reference to some of the items under the areas of health interest entitled: "family health" and "heredity and eugenics." A second principal indicated willingness to cooperate, but stated that health instruction was an alternate course and would not be taught until the following year. A third principal agreed to co-operate, received the number of check lists requested, but he took no further action. Four other schools did not reply to the letter asking their cooperation in the survey.

II. AN ANALYSIS OF HEALTH INTEREST AREAS IN MONTANA

Interest in topical areas. Tables I and II (pages 18 and 19) show by per cent the rank order of interest in the major areas of health among freshman boys (Table I) and girls (Table II) of the second class high schools. The percentage shown for each major area represents the proportion of favorable responses to the items in the area.

Table III, page 20, shows by per cent the interest in the major areas of health among freshmen in second class high schools of Montana. The percentage shown for each major area is based on the proportion of favorable responses to the items in the area. The first column shows the favorable response of

the boys, the second column, the favorable responses of the girls, the third column, the rank order of average interest for the freshman class as a whole, and the fourth column shows the degree of difference in the interests of the boys and girls. The footing on Table III is the average for each column.

It is interesting to note the difference in range of health interest between boys and girls. In the previously mentioned tables, the girls have shown interest in major areas fluctuating from 43 to 89 per cent, while the interests of the boys was shown to vary to a lesser degree from 51 to 79 degrees in favorable responses to the statement of the major health areas.

While difference in interest in each area, by sex, fluctuated in Table III, column 4, from less than one per cent (line 2) to about 15 per cent (line 1), it was interesting to note that the average was 5.25 per cent. It seemed rather odd, the greatest difference in interest between sex (line 1, column 3) should also lie in the area that ranked highest in interest of the freshmen as a group, (line 1, column 4), and the least difference (line 2, column 3) was in the area that ranked second high (line 2, column 4).

In Tables I and II, pages 18 and 19, there appeared to be a common core of interest regardless of sex. In both tables the boys and girls ranked the same nine health areas as being of most interest but in different order. In these tables, the same two areas of least interest were ranked in the same order.

TABLE I

INTERESTS IN MAJOR HEALTH AREAS OF FRESHMAN
BOYS IN SIXTEEN SELECTED SECOND CLASS
HIGH SCHOOLS OF MONTANA

Major areas	Percentage of students interested
1. Health services and facilities for school and community	78.67
2. Keeping physically fit	75.67
3. Safety and first aid	75.60
4. Personal appearance and personality development	74.50
5. Occupational health	74.50
6. Narcotics, stimulants, and habit forming substances	71.50
7. Modern trends in health	70.75
8. Mental Health and disease	70.30
9. Health and physical environment	66.25
10. Care of special organs	63.50
11. Chronic and degenerating disorders as a result of disease	61.30
12. Infection and protection from disease	60.60
13. Family health	60.25
14. Heredity and eugenics	59.00
15. Nutrition and health in the selection and composition of food	57.30
16. Fatigue and rest	53.00
17. The school health and sanitation program	51.67

TABLE II

INTERESTS IN MAJOR HEALTH AREAS OF FRESHMAN
GIRLS IN SIXTEEN SELECTED SECOND CLASS
HIGH SCHOOLS OF MONTANA

Major area	Percentage of students interested
1. Personal appearance and personality development	89.00
2. Modern trends in health	82.00
3. Keeping physically fit	80.67
4. Health services and facilities for school and community	78.00
5. Mental health and disease	76.30
6. Safety and first aid	74.80
7. Occupational health	73.50
8. Narcotics, stimulants, and habit forming substances	72.30
9. Family health	69.00
10. Nutrition and health in the selection and composition of food	66.67
11. Heredity and eugenics	66.50
12. Chronic and degenerating disorders as a result of disease	66.30
13. Health and physical environment	62.25
14. Care of special organs	60.75
15. Infection and protection from disease	57.40
16. Fatigue and rest	51.50
17. The school health and sanitation program	43.00

TABLE III

PERCENTAGE OF INTEREST SHOWN IN MAJOR HEALTH AREAS
BY FRESHMEN IN SIXTEEN SELECTED SECOND CLASS
HIGH SCHOOLS OF MONTANA

Major areas	Boys	Girls	Av.	Diff.
1. Personal appearance and personality development	74.50	89.00	81.75	14.50
2. Health services and facilities for school and community	78.67	78.00	78.34	00.67
3. Keeping physically fit	75.67	80.67	78.17	05.00
4. Modern trends in health	70.75	82.00	76.38	11.25
5. Safety and first aid	75.60	74.80	75.20	00.80
6. Occupational health	74.50	73.50	74.00	01.00
7. Mental health and disease	70.30	76.30	73.30	06.00
8. Narcotics, stimulants, and habit-forming substances	71.50	72.30	71.90	00.80
9. Family health	60.25	69.00	64.63	08.75
10. Health and physical environment	66.25	62.25	64.25	04.00
11. Chronic and degenerating disorders as a result of disease	61.30	66.30	63.80	05.00
12. Heredity and eugenics	59.00	66.50	62.75	07.50
13. Infection and protection from disease	60.60	57.40	62.20	03.20
14. Care of special organs	63.50	60.75	62.13	02.75
15. Nutrition and health in food selection and composition	57.30	66.67	61.99	09.37
16. Fatigue and rest	53.00	51.50	52.25	01.50
17. School health and sanitation	51.67	43.00	47.34	08.67
Averages	66.14	68.82	67.48	05.25

III. GRAPHIC REPRESENTATION OF RESPONSES

Interpretation of the graphs. The major areas of health were previously presented in rank order as units. The purpose of the graph is to present a breakdown of each major health area into the component items as used in the check list. Each number beneath the graph represents the item, with a corresponding number shown below the graph under the caption "items." The number given to each item corresponds with the numbers given that item in the check list. The numbers to the left of the graph presents a scale of the percentages on which the degree of favorable response to items will be determined. The solid line represents the interests of the boys, and the broken line that of the girls for each particular item as listed. For example, on page 24, item 1, a 65 per cent favorable response by the girls is indicated by the broken line, and a 68 per cent favorable response by the boys is shown by the solid line. This means that 65 and 68 per cent of the boys and girls, respectively, who participated in this study checked the word liked, indicating they were interested in learning about the habit-forming effects of marijuana cigarettes.

The graphs, numbering Figure 1 through Figure 17, are in the same order in which the major areas were listed in the check list.

Interest shown in narcotics, stimulants, and habit-forming substances. The frequency of response shown in

Figure 1 may be indicative of the emphasis that could be placed on a particular item in comparison with other items.

It will be noted that item 5, "coffee and tea," has the lowest rating in Figure 1. The lower rating may be due to several factors, namely: common usage of the substance in the home, previous study, and mildness of the stimulants. With the exception of this item, there appears to be considerable interest by the students in this area.

It is encouraging to note the amount of interest shown in this area, since most states require instruction in this subject.³

Interest in safety and first aid. Figure 2 shows about the same amount of interest in items 7, 8, and 9. Girls show more interest in recognizing poison oak and ivy (item 10) when they see it, than boys. The latter appear to be more familiar with poison oak and ivy than are girls. This may have been due to the fact that boys had more previous opportunities to study and recognize these plants from their past experiences in scouting and camping, hence, the boys see less need for recognizing the two plants than girls who may not be familiar with them.

The lack of interest on the part of girls in learning to use and shoot a gun properly (item 11) is probably due to the lack of a need for having a knowledge of guns.

³Williams and Brownell, op. cit., p. 386.

There appears to be a small percentage of difference between the interests of boys and girls in this area, with exception of interest in guns (item 11). This can be confirmed on page 26, line 5, column 4, where the difference is less than one per cent.

Turner, in a discussion of the psychology of children, states that youth on the freshman level have a natural curiosity concerning the world about them, and a desire to delve deep into the mysteries of science.⁴ This and other explanations of psychological behavior on the part of pupils, if borne in mind, may be a source for various interpretation of the remaining graphs.

⁴C. E. Turner, Principles of Health Education, (Chicago: D. C. Heath and Company, 1939), p. 78.

NARCOTICS, STIMULANTS AND HABIT FORMING SUBSTANCES

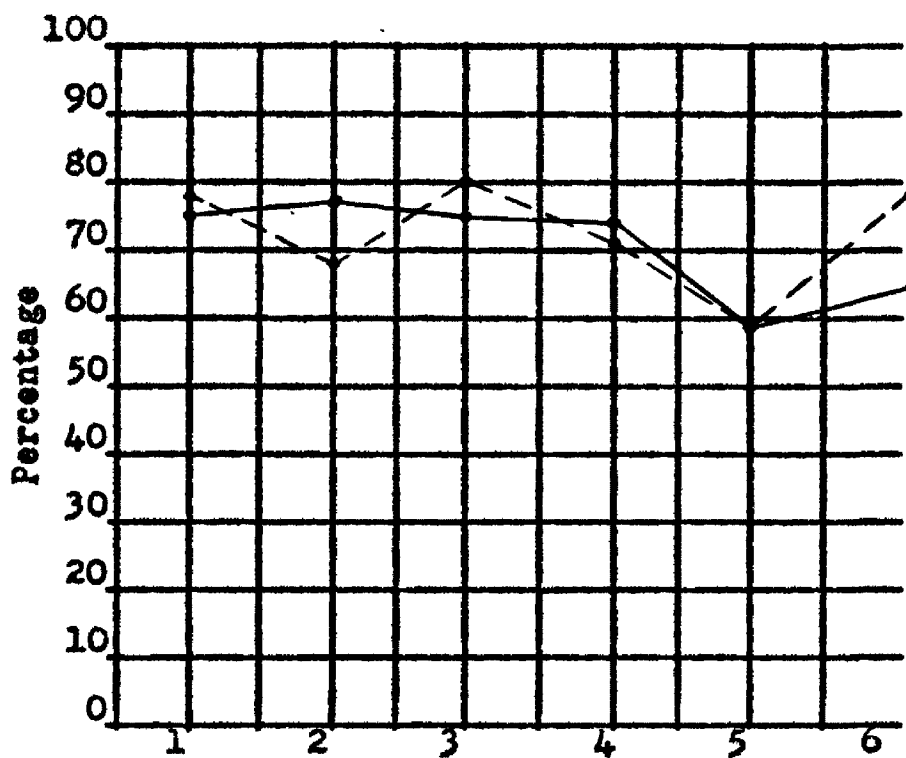


Figure 1.

Boys _____ Girls _ _ _ _ _
Items

1. To learn about the habit forming effects of marijuana cigarettes.
2. To find out the harmful effects of smoking.
3. To find out the effects of cola drinks on the body.
4. To discuss the effects of alcohol on the control of the functions of the body.
5. To learn how tea or coffee may affect you.
6. To know the danger of taking sleeping pills without the advice of a doctor.

SAFETY AND FIRST AID

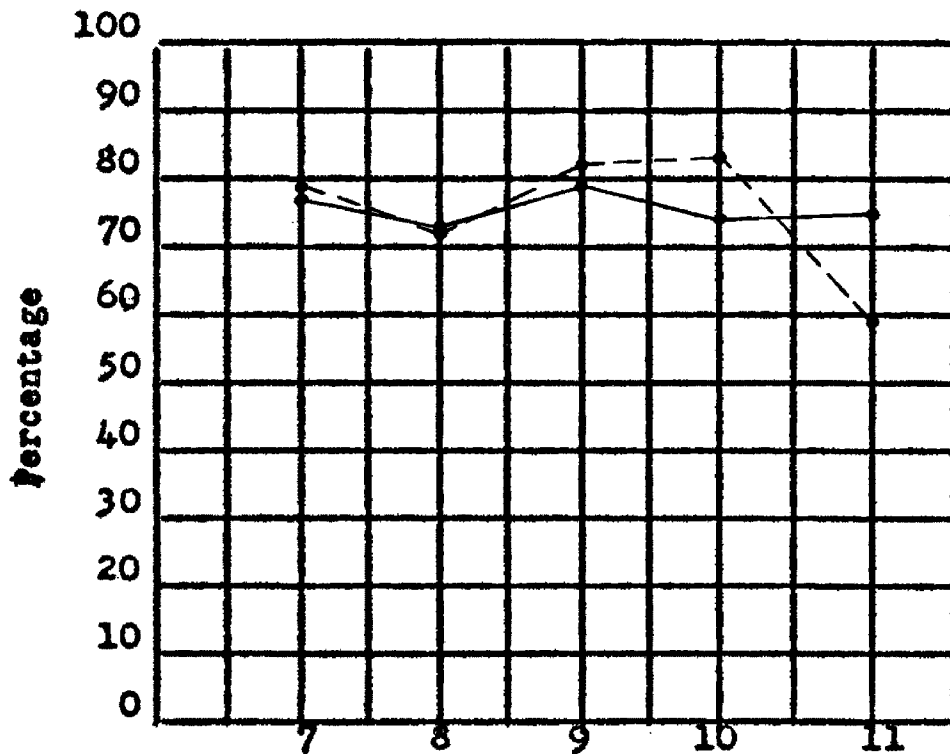


Figure 2.

Boys _____

Girls _ _ _ _ _

Items

7. To learn how to report accidents.
8. To see a demonstration on how to give artificial breathing.
9. To learn more about first aid.
10. To know poison oak and ivy when you see them.
11. To learn to use and shoot a gun properly.

FAMILY HEALTH

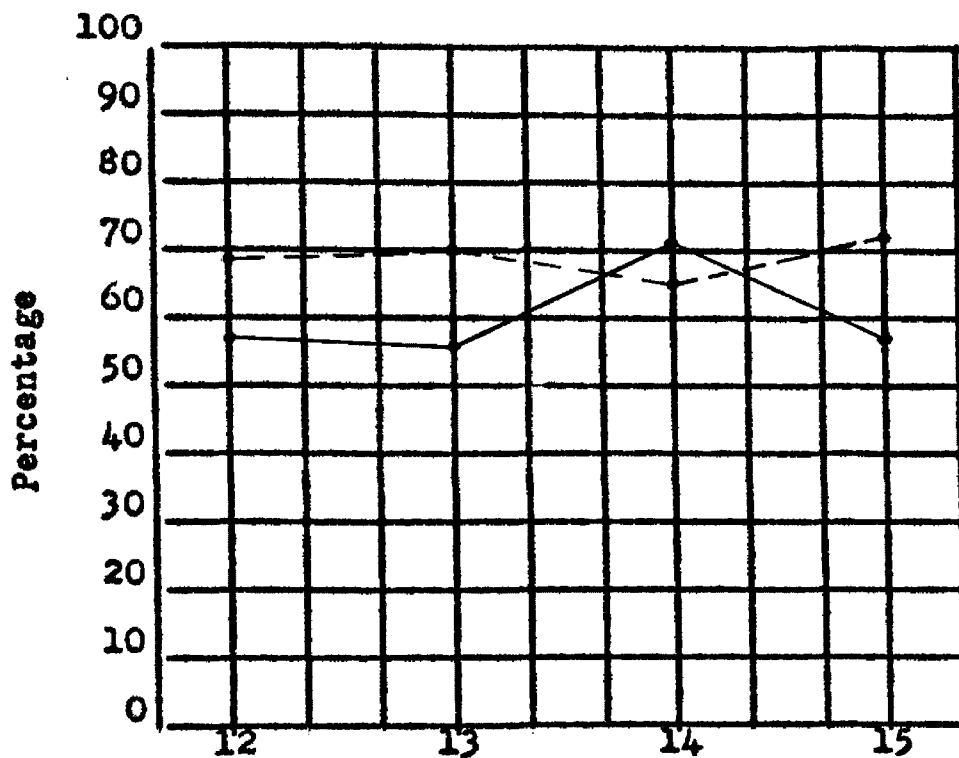


Figure 3.

Boys _____

Girls _ _ _ _ _

Items

12. To learn how to select a husband or wife.
13. To discuss some of the problems of raising children.
14. To know how boys' and girls' bodies change in the process of growing up.
15. To learn what is the safest age to have a baby.

HEREDITY AND EUGENICS

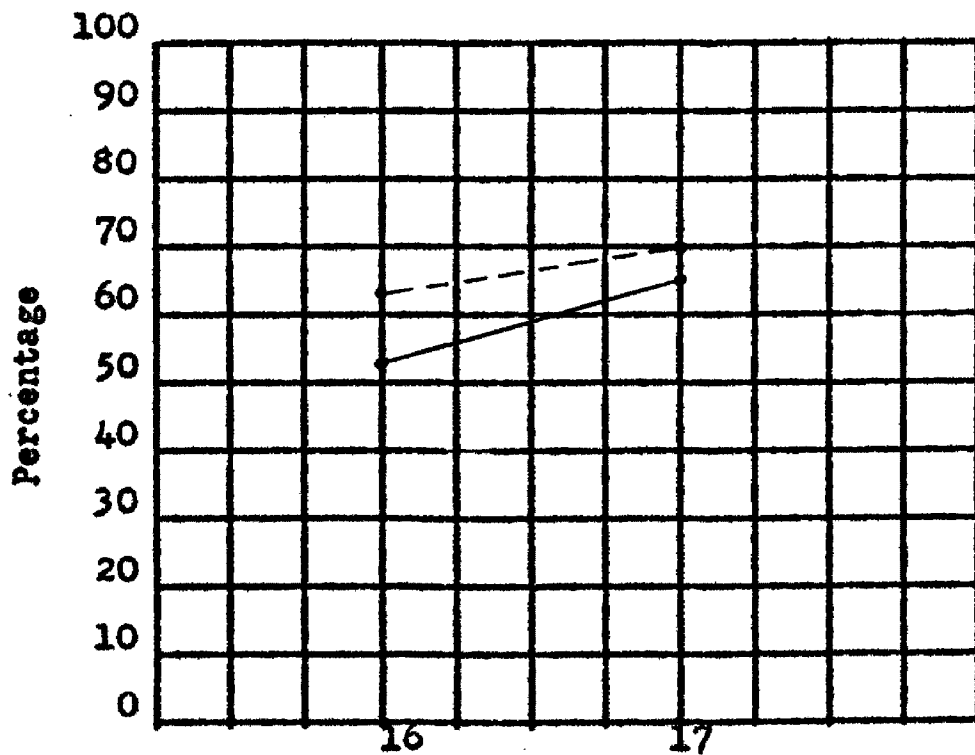


Figure 4.

Boys_____

Girls_ _ _ _ _

Items

16. To learn how babies are born.

17. To find out how characteristics are inherited from our parents.

MENTAL HEALTH AND DISEASE

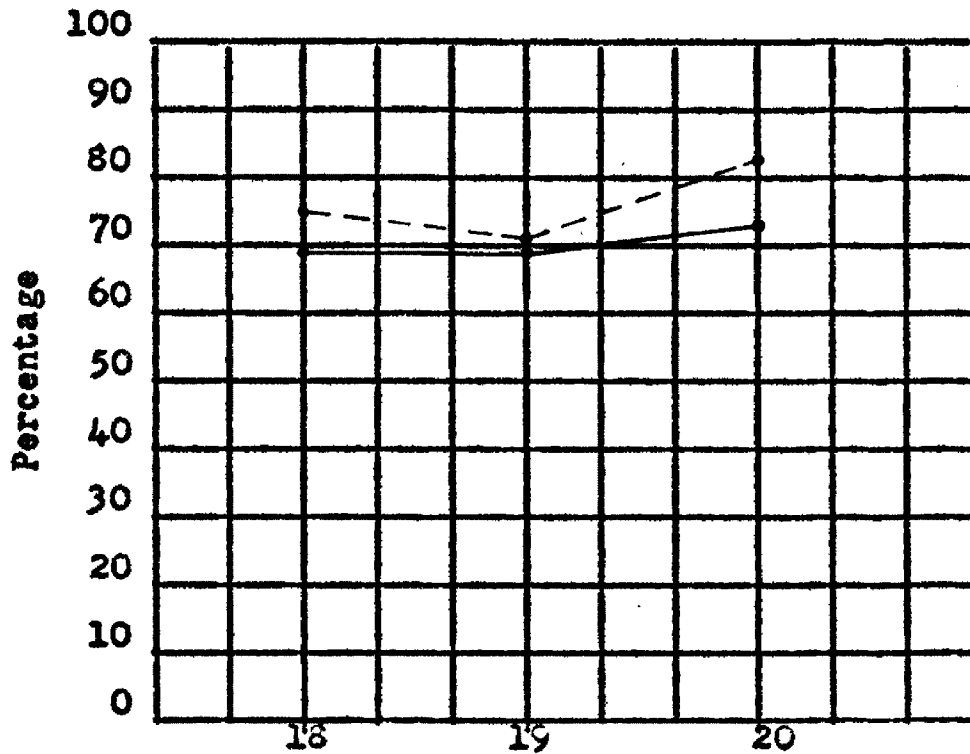


Figure 5.

Boys _____

Girls - - - -

Items

18. To have a discussion of some of the causes of insanity.
19. To know some of the causes for committing suicide.
20. To discuss ways of controlling your temper.

CHRONIC AND DEGENERATING DISORDERS
AS A RESULT OF DISEASE

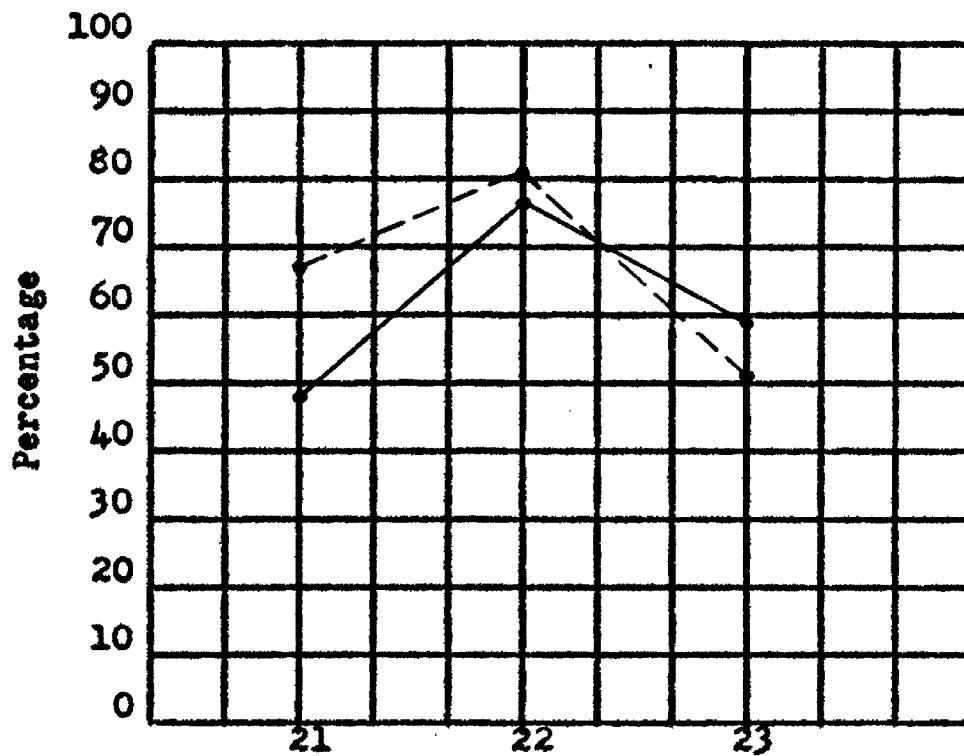


Figure 6.

Boys _____

Girls _ _ _ _ _

Items

21. To study the effects of a mother's disease on the baby before it is born.
22. To have a discussion of the causes of cancer.
23. To read material on the spread of social disease during the time of war.

INFECTION AND PROTECTION FROM DISEASE

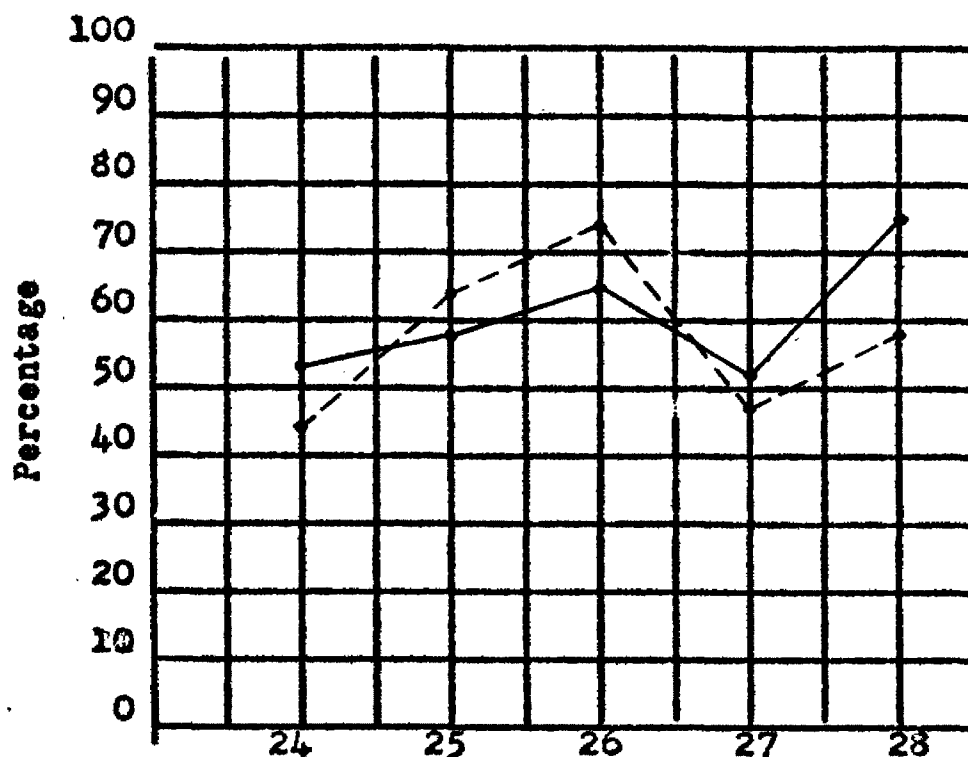


Figure 7.

Boys _____

Girls _ _ _ _ _

Items

24. To read how disease such as malaria and yellow fever were discovered and are controlled.
25. To find out which diseases need to be quarantined.
26. To hear a radio program on protecting oneself from infantile paralysis.
27. To visit a dairy to see how milk is obtained and made ready for your use.
28. To learn ways of preventing athlete's feet.

CARE OF SPECIAL ORGANS

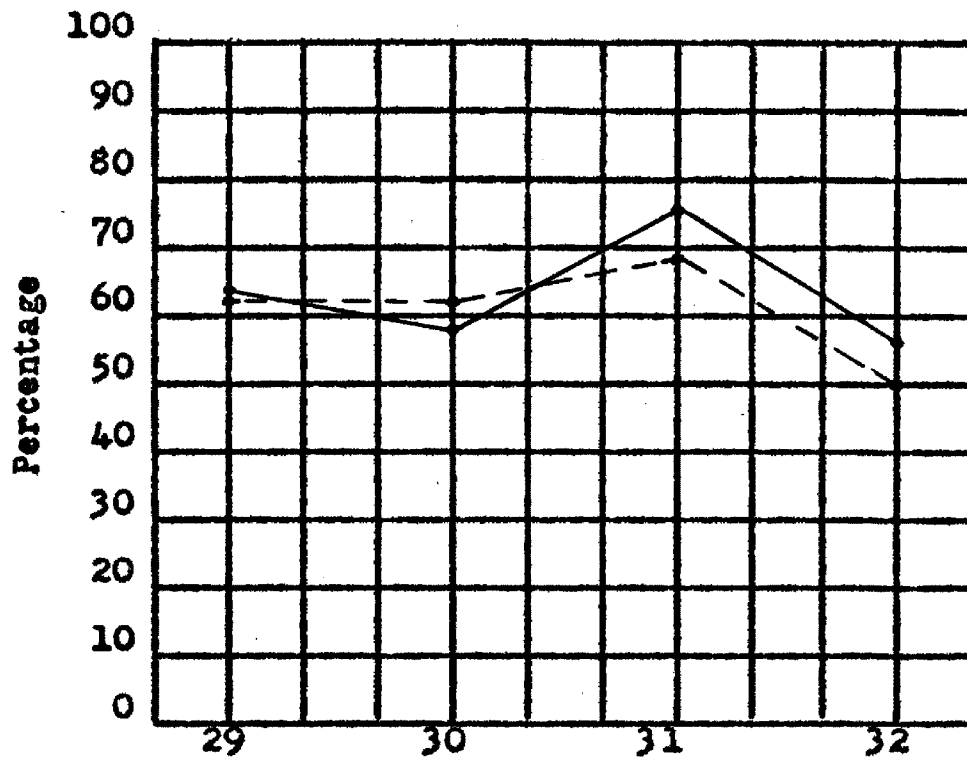


Figure 8.

Boys _____

Girls _ _ _ _ _

Items.

- 29. To study how sweets cause teeth to decay.
- 30. To see a movie on the proper way to care for the teeth.
- 31. To learn about the importance of good light in saving your eyesight.
- 32. To read about glands and how their juices affect your body.

FATIGUE AND REST

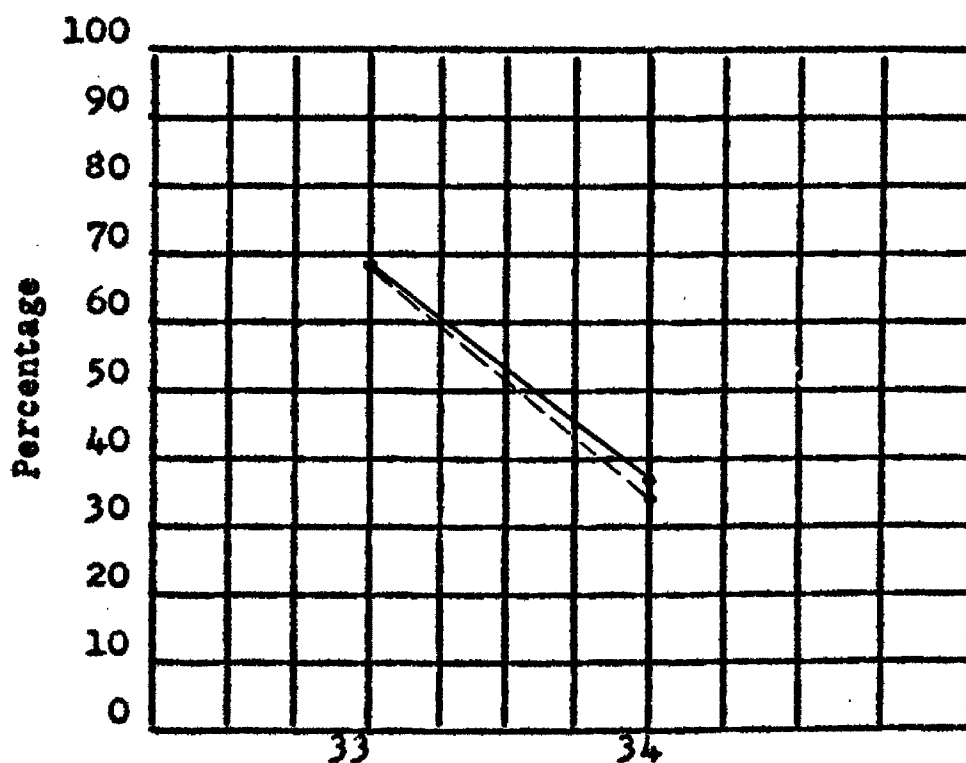


Figure 9.

B o y s _____

G i r l s _ _ _ _ _

Items

- 33. To learn ways of helping yourself relax before going to sleep.
- 34. To try lying down for a period of ten minutes after each meal.

KEEPING PHYSICALLY FIT

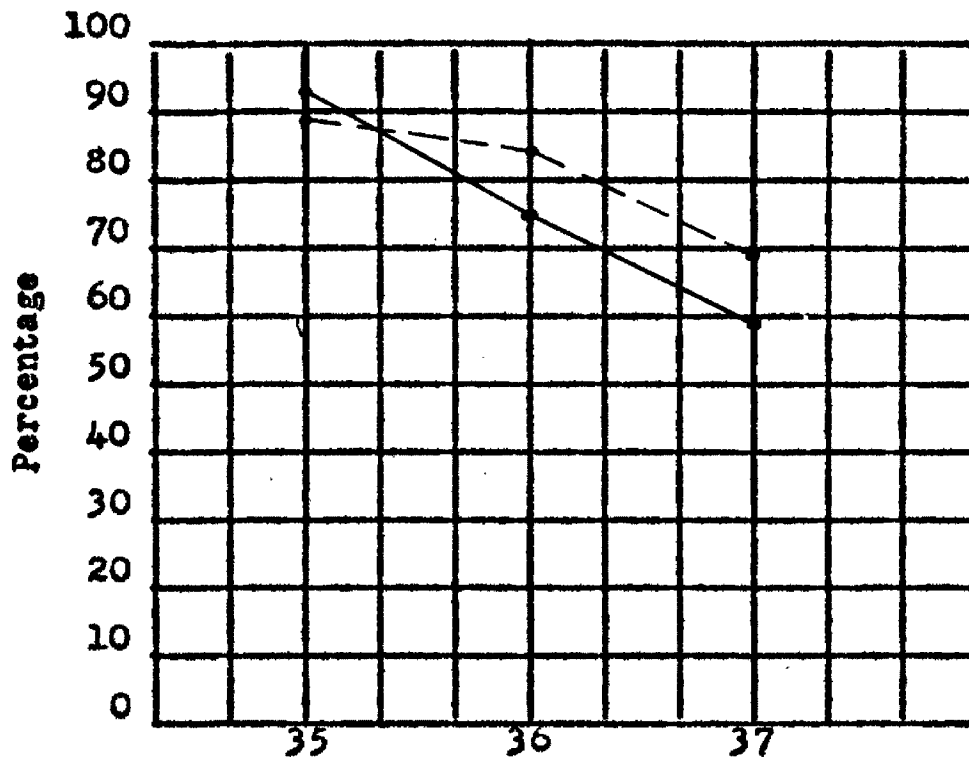


Figure 10.

Boys _____

Girls _ _ _ _ _

Items

35. To have a well-developed body.
36. To find out what your height and weight should be.
37. To learn the reason why you are cross when you are tired.

NUTRITION AND HEALTH IN THE SELECTION
AND COMPOSITION OF FOOD

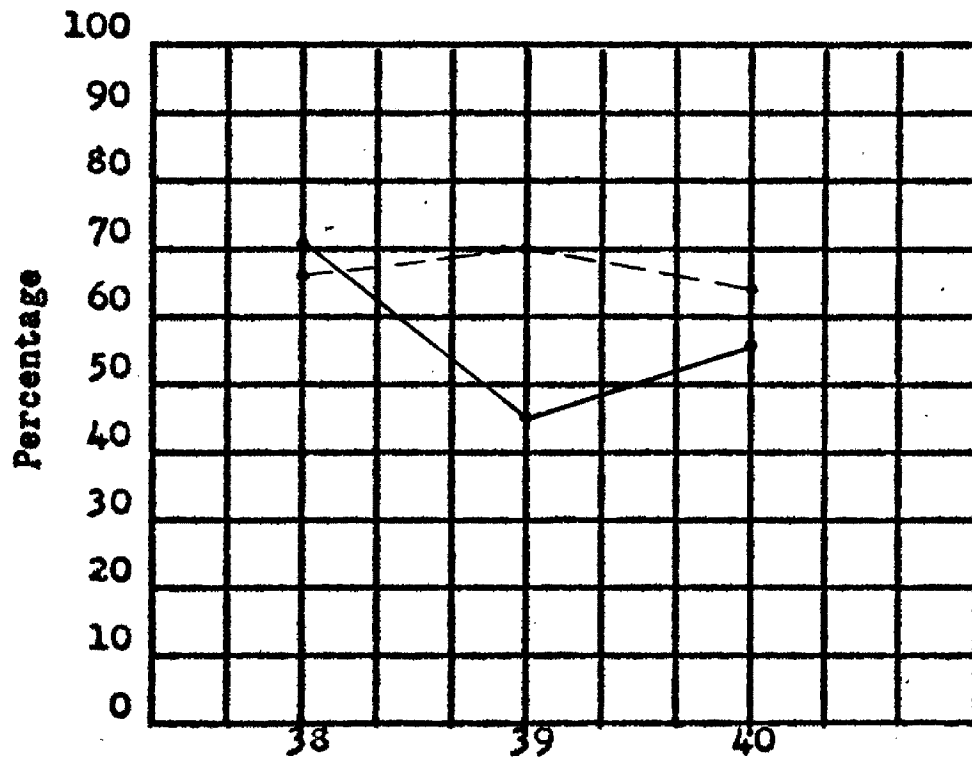


Figure 11.

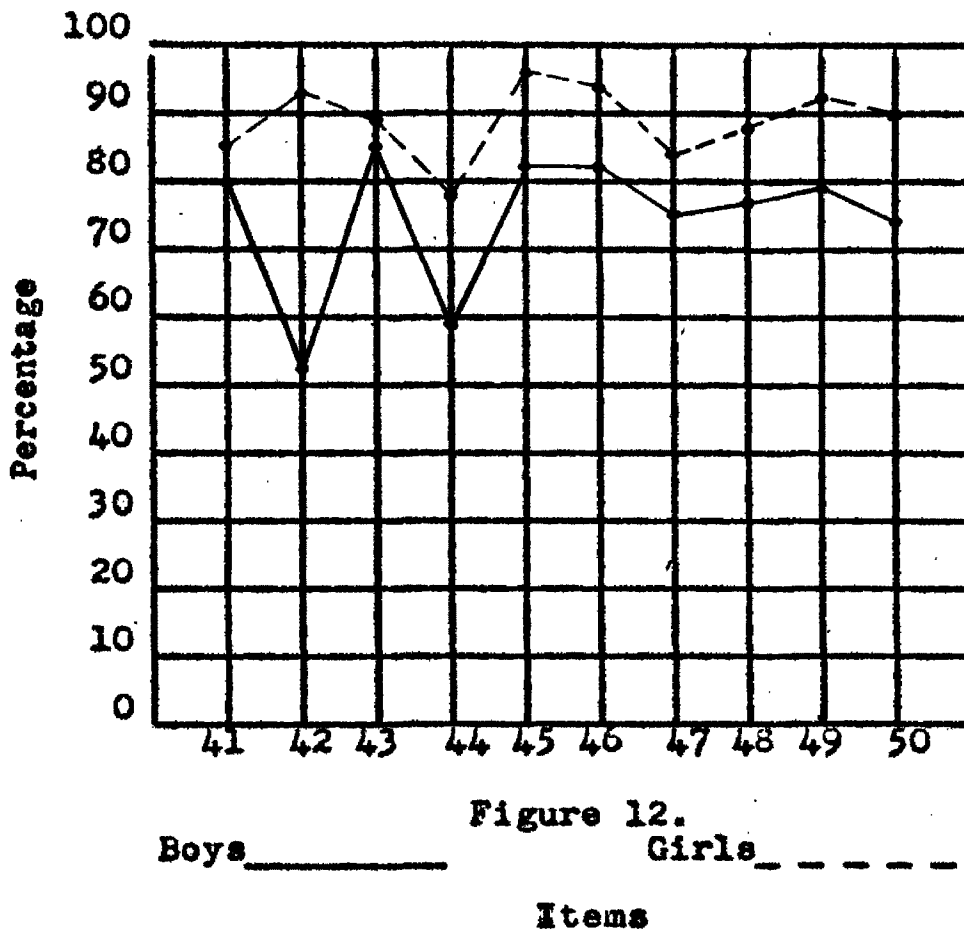
Boys _____

Girls _ _ _ _ _

Items

- 38. To know which foods to eat to be healthy.
- 39. To learn the dangers of dieting without first consulting a doctor.
- 40. To learn the importance of eating on time.

PERSONAL APPEARANCE AND PERSONALITY DEVELOPMENT



- 41. To wear clean clothes.
- 42. To find out which colors look best on different people.
- 43. To keep the body clean.
- 44. To see some pictures of what is good posture.
- 45. To find out ways of making yourself interesting to other people.
- 46. To learn what a girl likes in a boy and what a boy likes in a girl.
- 47. To learn why girls like to go with boys who are older than they are.
- 48. To go to parties where there are both girls and boys.
- 49. To learn how to develop confidence in yourself.
- 50. To discuss how to be popular with your schoolmates.

HEALTH AND PHYSICAL ENVIRONMENT

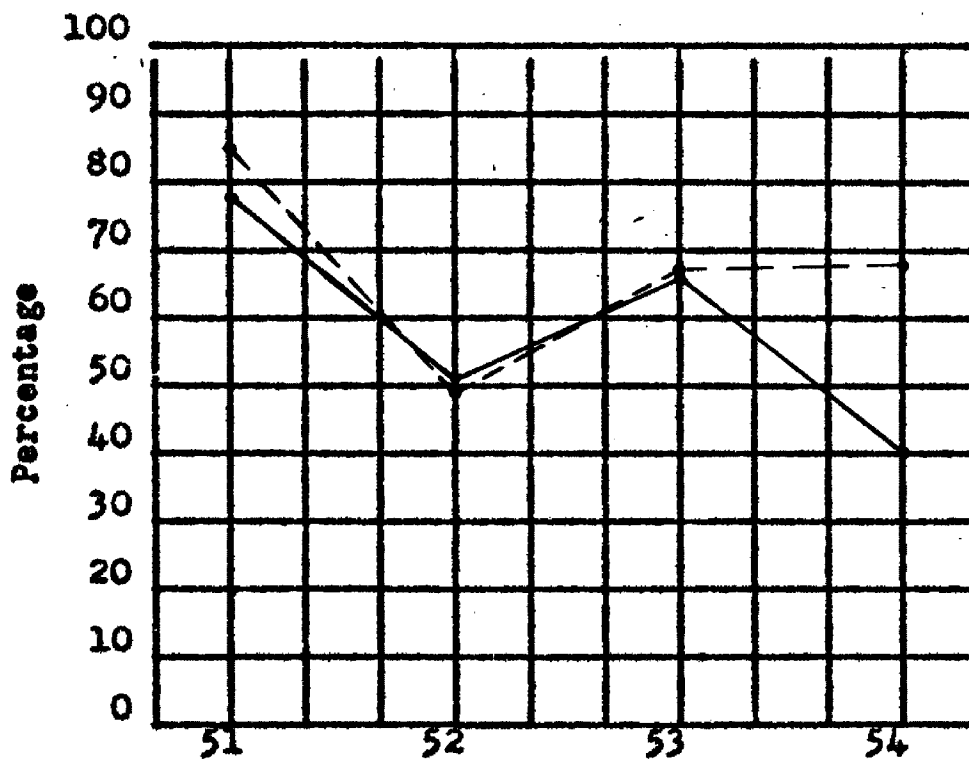


Figure 13.

Boys _____

Girls _ _ _ _ _

Items

51. To learn the activities boys and girls enjoy doing.
52. To study the effects of sunburn on the body.
53. To learn the safe speeds at which to drive.
54. To learn how to make a bed with a patient in it.

THE SCHOOL HEALTH AND SANITATION PROGRAM

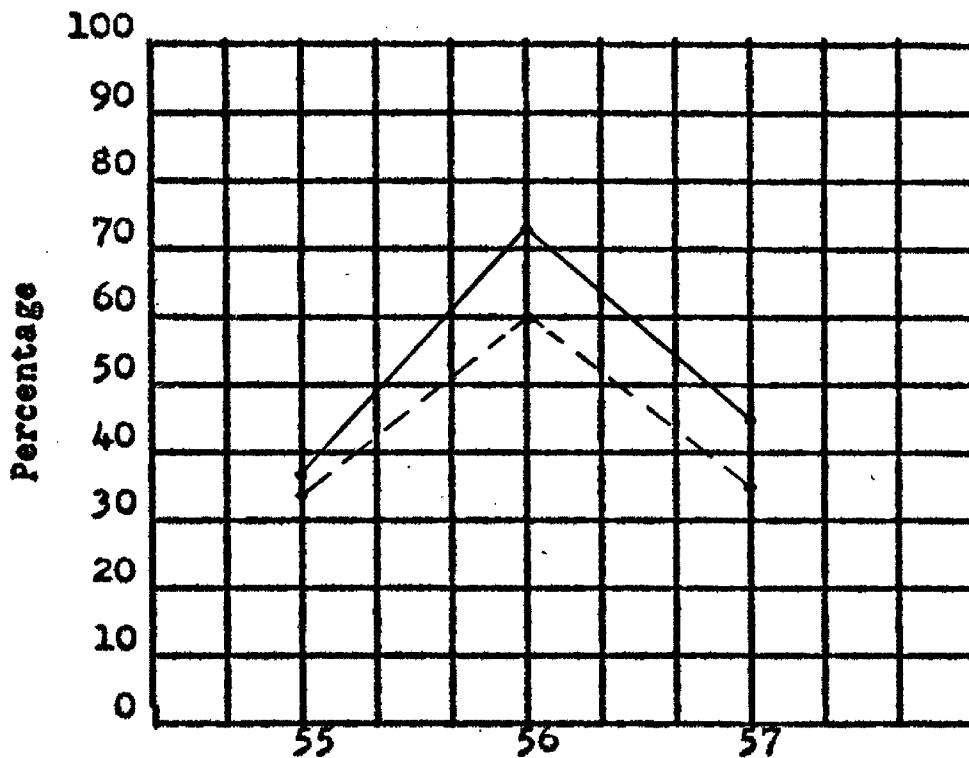


Figure 14.

Boys _____

Girls _ _ _ _ _

Items

- 55. To make a list of safety rules for your school.
- 56. To learn how to test water for impurities.
- 57. To measure your classroom to determine whether you have enough air and light.

HEALTH SERVICES AND FACILITIES FOR SCHOOL AND COMMUNITY

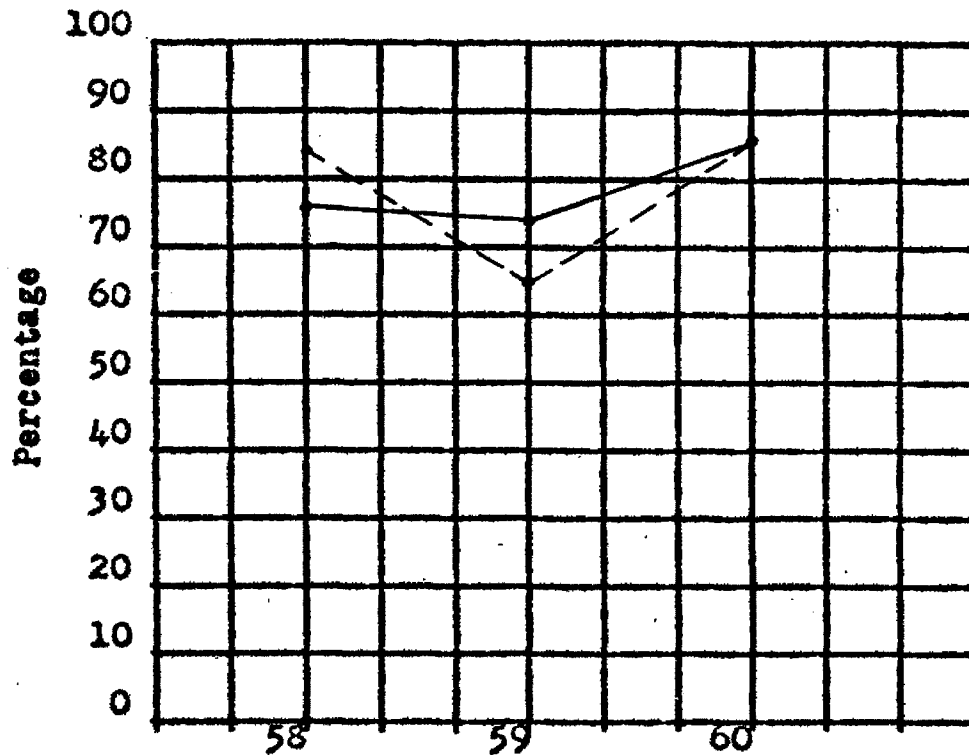


Figure 15.

Boys _____

Girls _ _ _ _ _

Items

- 58. To visit a hospital and see an iron lung work.
- 59. To have a doctor give you a thorough examination once a year.
- 60. To have a janitor who keeps the school neat and clean.

OCCUPATIONAL HEALTH

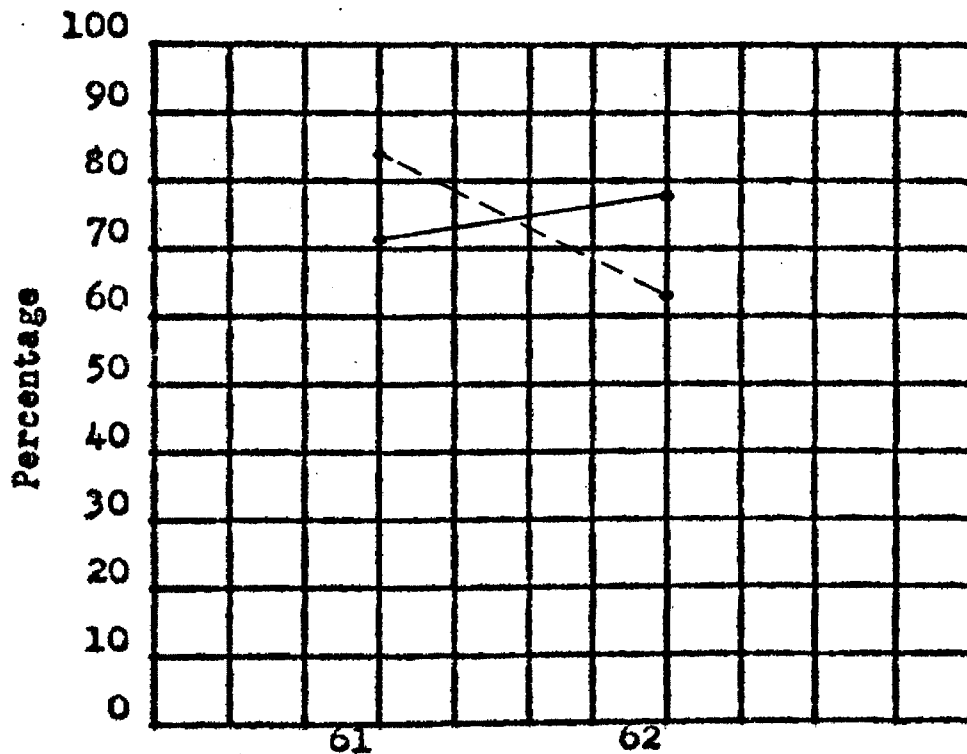


Figure 16.

Boys _____

Girls - - - - -

Items

61. To find out how old I must be according to law before I can be hired for a job.
62. To see a movie on how to avoid accidents at work.

MODERN TRENDS IN HEALTH

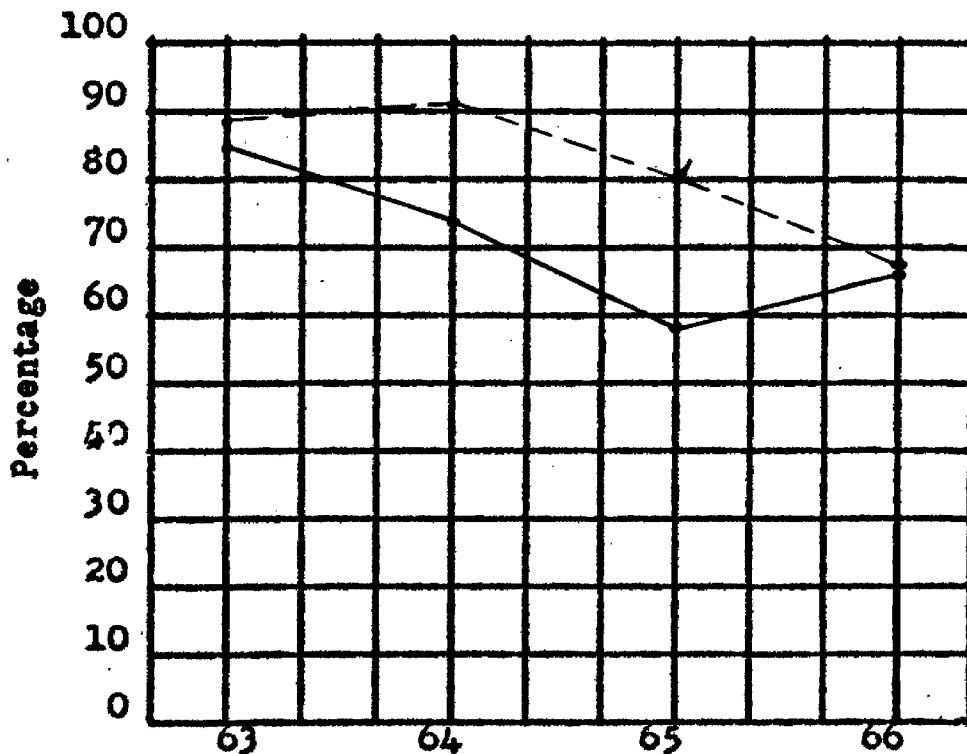


Figure 17.

Boys _____

Girls _ _ _ _ _

Items

- 63. To learn how to protect yourself from the harmful effects of the atomic bomb.
- 64. To learn how to drive a car properly.
- 65. To see a physiotherapist treat a victim of polio.
- 66. To have a doctor tell you how some of the new drugs are used to improve health.

Summary. In the analysis of the responses to the check list, an attempt has been made to show how health interests vary between freshman boys and girls. A list of the twelve items of greatest interest to the girls, on the freshman level in high school follows.

Boys

1. To have a well developed body
2. To have a janitor who keeps the school neat and clean
3. To learn how to protect yourself from the harmful effects of the atomic bomb
4. To keep the body clean
5. To learn what a girl likes in a boy, and what a boy likes in a girl
6. To find out ways of making yourself interesting to other people
7. To wear clean clothes
8. To learn how to develop confidence in yourself
9. To learn more about first aid
10. To see a movie on how to avoid accidents at work

Girls

1. To find out ways of making yourself interesting to other people
2. To learn what a girl likes in a boy, and what a boy likes in a girl
3. To find out which colors look best on different people
4. To learn how to develop confidence in yourself
5. To learn how to drive a car properly
6. To discuss how to be popular with your schoolmates
7. To have a well developed body
8. To keep the body clean
9. To learn how to protect yourself from the harmful effects of the atomic bomb
10. To go to parties where there are both girls and boys

- | | |
|--|---|
| 11. To learn the activities boys and girls enjoy doing | 11. To have a janitor who keeps the school neat and clean |
| 12. To learn how to report accidents | 12. To wear clean clothes |

An examination of the graphs indicated that eight of the twelve items of greatest interest to freshman girls are in the area of personal appearance and personality development. The fact that 75 per cent of those items are from a single area is significant for the development of a health curriculum where the interests of the student are to be taken into consideration. Five of the twelve items of greatest interest to boys were also from the area of personal appearance and personality development. The area of first aid is apparently important to boys as indicated in ranking third, and of interest to the girls in ranking sixth. Boys and girls showed a mutual interest in having a well developed body, a janitor who keeps the school neat and clean, and in understanding the effects of atomic bombing, which is closely related to first aid.

As far as the health interests of freshmen are concerned, it appears to the author that a knowledge of dislikes would be of value in ascertaining what not to emphasize in planning a course in health instruction.

The following is a list of items given in rank order of least interest to high school freshmen.

Boys

1. To make a list of safety rules for your school*

Girls

1. To measure your classroom to determine whether you have enough air and light*

- | | |
|--|--|
| 2. To try lying down for a period of ten minutes after each meal* | 2. To try lying down for a period of ten minutes after each meal* |
| 3. To learn how to make a bed with a patient in it | 3. To make a list of safety rules for your school* |
| 4. To learn the dangers of dieting without first consulting a doctor | 4. To read how diseases such as malaria and yellow fever were discovered and are controlled* |
| 5. To measure your classroom to determine whether you have enough air and light* | 5. To visit a dairy to see how milk is obtained and made ready for your use* |
| 6. To visit a dairy to see how milk is obtained and made ready for your use* | 6. To read about glands and how their juices affect your body |
| 7. To find out which colors look best on different people | 7. To learn to use and shoot a gun properly |
| 8. To read how diseases such as malaria and yellow fever were discovered and are controlled* | 8. To read material on the spread of social disease during the time of war |
| 9. To discuss some of the problems of raising children | 9. To learn how to test water for impurities |
| 10. To see a movie on the proper way to care for the teeth | 10. To study how sweets cause teeth to decay |

* This indicates a common disinterest in the same item.

Just as there appeared to be a common core of interest among boys and girls, there likewise appeared a mutual expression of disinterest for items. The statement, to find out which colors look best on different people, is a case of extremes, being listed among one of the ten most interesting items to the girls and one of least interest to boys.

It appears that dieting, brushing the teeth, making a bed with a patient in it, and the problem of raising children is far removed from the interest of boys. Girls, on the other hand, find such things as spread of social disease during time of war, testing water for impurities, how sweets cause teeth to decay, shooting a gun, glands and the effect of their juices on the body, least appealing of the items submitted in the check list. The phrase "social disease" may not have been clearly understood, if this were true, it may account for the lack of interest. Except for learning to use and shoot a gun properly, the remaining items of least interest may have been so low in favorable response on the part of the student because they had received sufficient instruction in preceding grades.

It is hoped that the findings may be of value to those who are interested in developing a health instruction course in Montana high schools.

CHAPTER IV
A COMPARISON OF THE FINDINGS
WITH SIMILAR RESEARCH

I. INTRODUCTION

This chapter is concerned with a comparison of the findings of this study with findings from studies of a similar type.

II. SIMILAR RESEARCH

The Lantagne Study. Joseph E. Lantagne, of the University of California, utilized an inventory of health interests compiled by Oliver E. Byrd of Stanford University, in a survey of eight secondary schools in California.

For the administration of the check list of health interests, the students remained anonymous and were encouraged to check the items without inhibition. The responses were analyzed and items placed in a rank order according to the degree of interest in each item. The total response for all items in a given area was used to determine a rank order for that major health area. Validity and reliability of the check list was established by correlation of test and retest with the same group, test and retest with different groups,

and the split-half method on two hundred inventories.¹

The Denver Study. This study was developed through the cooperative effort of the professional staff of the Denver Public Schools and the Denver Board of Education. The study was based on three important resources in curriculum building, namely: (1) the health interest of children, (2) the health needs of children, and (3) the developmental characteristics of children at various age levels. These resources were secured from a study of the health interests of 228 parents, 161 teachers, and 3,600 children. Of the 3,600 pupils concerned in the study, there were 1,200 at each level, elementary, junior high and senior high school. Because of reading difficulty, the check list was not used below grade four, instead, one hundred of the personal interview type of check list were used to determine the health needs and interest of children from kindergarten to grade four.

The results of the survey were tabulated in rank order of frequency of response indicating both favorable and unfavorable response to the items. To fully utilize the results of this study in planning a health program, four charts were built for the purpose of summarizing findings and recommendations. The charts were for grades one through six, seven through nine, and ten through twelve. All of the major

¹Lantagne, op. cit., pp. 34-35.

health areas were elaborated upon in the chart for grades ten through twelve. The area of "eugenics" was omitted in the chart for grades seven through nine, and the chart for grade one through three, bore no discussion of the areas of "eugenics," "cause of disease," "structure and function of the body," "stimulants and narcotics," "home nursing" and "first aid."

Health committees in elementary, junior high, and senior high schools, are now using the charts as guide posts in building a coordinated health program for the children in the Denver Public Schools.

III. A COMPARISON OF THE STUDIES

Method of determining health interests. The studies by the Denver Public Schools, Lantagne, and the author, obtained expressions of student interests through direct response to check lists.

In Table IV, page 52, a comparison of the findings of the three studies can be found.

The health interests of Montana freshmen are listed in rank order under the column with the heading "Montana." The Denver study has its areas of greatest health interest listed under the title of "Denver," and that of Lantagne is listed under "California." Each number under these headings, represents a rank order of interest for the major health area on that line.

Because California based the health interest for the major areas on the high school as a whole, there may be a weakness in the validity of comparisons between Montana and California as to major areas. In the California study the specific items included under each major health area were compiled with the freshman and sophomore students tabulated as one group. This again will not allow a true comparison between Montana and California. Since the total difference in the experiences of freshmen and sophomores is small, the author felt justified in including the California study for the sake of determining similarities in health interests.

In summarizing the interests of the freshman students in Denver, it was established that freshman high school students seem interested primarily in making satisfactory personal adjustments.² Table IV, page 52, shows that Montana students are in accord with the Denver students in this area of "personal appearance and personality development" since the topic received the greatest number of favorable response from both. The results of the interest shown by California students puts the same area in eighth place. In the second major area listed as "health services and facilities for school and community," low interests was shown in California and a high interest was indicated in both Denver and Montana, where the area received a mutual second place ranking. This later interest may be due to a

²Denver Public Schools, op. cit., p. 79.

better understanding of a need for cooperation between community and school in achieving a healthful living environment.

It appears that there is mutual agreement in the area "keeping physically fit." The amount of interest shown in this area is of value in developing other major areas through provision of the proper activities. If the activities provided for are natural, spontaneous, and joyous in a suitable environment and with adequate supervision, it may be possible to obtain, not only muscular growth, but growth of the vital organs, the nervous system, as well as mental and social growth.³ In striving for physical fitness, students attain some measure of experience in other health areas, thus indirectly, all other areas are influenced by a desire for physical fitness regardless of the interest shown in the table.

California shows interest in the area of "narcotics, stimulants and habit-forming substances," and in "family health," in that these areas rank first and second, respectively. This area, in ranking third in Denver and first in California, may be indicative of the emphasis placed upon this area by the schools through varying degrees of legislation in the different states.

³Joint Committee on Health Problems in Education of the National Educational Association and the American Medical Association, Health Education (Washington, D.C.: National Educational Association of the United States, 1941), p. 135.

Montana and Denver children appear to have greater interest in the "modern trends in health" than do California students, where this area is ranked as being of least interest among the seventeen major areas covered.

The degree of low interest evidenced by Denver and California for the area of "occupational health," ranked it with the lower one-ninth. The Montana study was in disagreement with the other two studies in that high interest was indicated and the area placed in the upper one third.

In the various studies, "first aid" and its related areas ranked third in California, eleventh in Denver, and fifth in Montana. No explanation is given for the comparatively low ranking of the ninth grade in Denver. It would seem, however, that a high ranking would be in keeping with the emphasis placed upon Safety and First Aid by industry and recognized organizations, such as the American Red Cross and the Bureau of Mines.

The three studies are in general agreement in ranking of the last seven areas of least interest, with two exceptions, "heredity and eugenics" which ranked about fourth in Denver, and "care of special organs" which ranked sixth in California.

It appears to the author that rank order of interest for the various areas in this study might be of some value to those who are contemplating making health instruction a part of the high school curriculum. For example: The area

"keeping physically fit" ranked third in the interest of freshman students in Montana, sixth in the Denver study, and fifth in California. It would seem that this area should be given consideration as a unit for a course in health instruction. Likewise, mutual low ranking of an area does not necessarily mean exclusion from the course, but would indicate a lesser amount of emphasis.

Tables V, VI, and VII, on pages 53 to 55, inclusive, contain the items that were checked as most interesting in the studies made in Denver, California, and Montana, respectively.

A COMPARISON OF SIMILAR RESEARCH ACCORDING TO RANK
ORDER OF INTEREST IN THE MAJOR HEALTH AREAS

Major areas	Montana	Denver	California
1. Personal appearance and personality development	1	1	8
2. Health services and facilities for school and community	2	2	15
3. Keeping physically fit	3	6	5
4. Modern trends in health	4	9	17
5. Safety and first aid	5	11	3
6. Occupational health	6	17	16
7. Mental health and disease	7	4½	4
8. Narcotics, stimulants, and habit-forming substances	8	3	1
9. Family health	9	16	2
10. Health and physical environment	10	7	7
11. Chronic and degenerating disorders	11	12½	9
12. Heredity and eugenics	12	4½	14
13. Infection and protection from disease	13	10	10½
14. Care of special organs	14	12½	6
15. Nutrition and health in food selection and composition	15	15	12
16. Fatigue and rest	16	8	10½
17. School health and sanitation	17	14	13

TABLE V
THE TEN LEADING ITEMS OF INTEREST TO HIGH SCHOOL
FRESHMEN IN DENVER, COLORADO

Boys	Girls
1. To go to parties where there are both boys and girls	1. To find out ways to make yourself more interesting to other people
2. To find out why some people like you and others do not	2. To discuss ways of controlling your temper
3. To learn how to take good care of your eyes	3. To go to parties where there are both boys and girls
4. To know how boys and girls change in the process of growing up	4. To learn what a boy likes in a girl and what a girl likes in a boy
5. To learn what a boy likes in a girl and what a girl likes in a boy	5. To discuss how to be popular with your schoolmates
6. To learn how to build muscles	6. To find out which colors look best on you
7. To learn the activities boys and girls enjoy together	7. To find out some of the characteristics you get from your parents
8. To find out the effects of cola drinks	8. To learn how to select your clothes
9. To visit a hospital to see an iron lung work	9. To find out why some people like you and others do not
10. To find out what your height and weight should be	10. To keep your hands and fingernails clean

TABLE VI
THE TEN LEADING ITEMS OF INTEREST TO HIGH SCHOOL
FRESHMEN AND SOPHOMORES IN CALIFORNIA

Boys	Girls
1. Juvenile delinquency	1. Juvenile delinquency
2. Atomic warfare	2. Sex instruction
3. Sex instruction	3. Safest age to have a baby
4. Tobacco and human health	4. How to have good posture
5. Hit-and-run drivers	5. Causes of suicides
6. How to report accidents	6. Preparation for marriage
7. How to use a gun properly	7. Cancer
8. Sports vs. apparatus activity	8. Lifelong care of the eyes
9. Causes of suicide	9. Causes of mental illness
10. Cancer	10. Dangers of sleeping pills

Note: Lantagne included both freshmen and sophomores in his list, while only freshmen are considered in the others.

TABLE VII

THE TEN LEADING ITEMS OF INTEREST TO FRESHMEN IN
SELECTED SECOND CLASS HIGH SCHOOLS
OF MONTANA

Boys		Girls	
1.	To have a well developed body	1.	To find out ways of making yourself interesting to other people
2.	To have a janitor who keeps the school neat and clean	2.	To learn what a girl likes in a boy, and what a boy likes in a girl
3.	To learn how to protect yourself from the harmful effects of the atomic bomb	3.	To find out which colors look best on different people
4.	To keep the body clean	4.	To learn how to develop confidence in yourself
5.	To learn what a girl likes in a boy, and what a boy likes in a girl	5.	To learn how to drive a car properly
6.	To find out ways of making yourself interesting to other people	6.	To discuss how to be popular with your schoolmates
7.	To wear clean clothes	7.	To have a well developed body
8.	To learn how to develop confidence in yourself	8.	To keep the body clean
9.	To learn more about first aid	9.	To learn how to protect yourself from the harmful effects of the atomic bomb
10.	To see a movie on how to avoid accidents at work	10.	To go to parties where there are both girls and boys

TABLE VIII
THE TEN ITEMS OF LEAST INTEREST TO HIGH SCHOOL
FRESHMEN IN DENVER, COLORADO

Boys	Girls
1. To make a list of safety rules for your playground	1. To listen to talks on vitamins
2. To draw a diagram showing the structure of a tooth	2. To draw a diagram showing the structure of a tooth
3. To listen to talks on vitamins	3. To study a drawing of a car
4. To make posters of foods found in well-balanced meals	4. To make charts showing the seven basic foods
5. To study about health helpers in your community	5. To study about health helpers in your community
6. To make charts showing the seven basic foods	6. To learn how to get to school safely
7. To prepare a chart on the kind of accidents that happen in your school	7. To study posters to see how food affects health
8. To discuss possible careers in the field of health	8. To make a list of safety rules for your playground
9. To construct a chart showing how our city departments help keep us well	9. To prepare a chart on the kind of accidents that keep us well
10. To keep a record of a sick person's temperature	10. To construct a chart showing how our city departments help keep us well

TABLE IX

THE TEN ITEMS OF LEAST INTEREST TO HIGH SCHOOL
FRESHMEN IN MONTANA

Boys	Girls
1. To make a list of safety rules for your school	1. To measure your class-room to determine whether you have enough air and light
2. To try lying down for a period of ten minutes after each meal	2. To try lying down for a period of ten minutes after each meal
3. To learn how to make a bed with a patient in it	3. To make a list of safety rules for your school
4. To learn the dangers of dieting without first consulting a doctor	4. To read how diseases such as malaria and yellow fever were discovered and are controlled
5. To measure your class-room to determine whether you have enough air and light	5. To visit a dairy to see how milk is obtained and made ready for your use
6. To visit a dairy to see how milk is obtained and made ready for your use	6. To read about glands and how their juices affect your body
7. To find out which colors look best on different people	7. To learn to use and shoot a gun properly
8. To read how diseases such as malaria and yellow fever were discovered and are controlled	8. To read material on the spread of social disease during the time of war
9. To discuss some of the problems of raising children	9. To learn how to test water for impurities
10. To see a movie on the proper way to care for the teeth	10. To study how sweets cause teeth to decay

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

I. INTRODUCTION

Throughout this study, an effort has been made to determine the health interests of freshman students in selected second class high schools of Montana, for the purpose of making recommendations that might be used in planning a course of study for health instruction.

The instrument used to determine the health interests of the students was a check list composed of seventeen major areas of health, with each of these areas broken down into specific items.

The degree of interest was derived by tabulating the number of favorable responses to the items, as indicated by those students who indicated a like for the items in the check list. Results were presented in part by tables, showing the percentage of student interest in the major areas, and by graphic illustration of student interest in each item related to the major areas.

Similarities and differences between this study and those of similar research have been indicated.

II. MAJOR FACTS REVEALED BY THE STUDY

The writer is of the opinion that health interests can be measured with a great deal of reliability by the use of a check list. This opinion is supported by the findings of the Joint Committee on Health Education of the National Educational Association and the American Medical Association. They found that there is high correlation on check lists wherein "like" or "dislike" is used, inasmuch as people tend to like the things which they believe to be true or valuable, and dislike the things which they believe do not possess value.¹

There appears to be a very high level of student interest in health in Montana, as is evidenced by the fact only one area, "the school health and sanitation program," Table II, page 19, received less than 51 per cent favorable response of interest. The 43 per cent of "like" response assigned to this area is still higher than the highest per cent of interest evidenced in the Lantagne study, which was 38 per cent interest for the major area of "habit-forming substances."

A common core of health interest is revealed in Table III, page 20. More than 70 per cent of the boys and girls expressed interest in the same nine of the seventeen

¹Joint Committee on Health Problems in Education of the National Educational Association and the American Medical Association, op. cit., p. 202.

major areas of health. They are: (1) personal appearance and personality development, (2) health services and facilities for school and community, (3) keeping physically fit, (4) modern trends in health, (5) safety and first aid, (6) occupational health, (7) mental health and disease, (8) narcotics, stimulants and habit-forming substances, and (9) family health. This common core of health interest should prove useful in curriculum construction.

The average of differences in the health interests, between boys and girls in the major areas as a whole, was 5.25 per cent. The greatest difference between particular areas evidenced as 14.5 per cent, in the major area of "personal appearance and personality development." The lowest was 0.62 per cent, in the major area of "health services and facilities for school and community."

The percentage of interest in the various major areas of health could be a guide for time to be allotted to each unit of study in a health instruction course.

Because the major area of "personal appearance and personality development" ranked first in student interest, Table IV, page 52, it should receive considerable emphasis in developing a curriculum in health instruction.

It is apparent to the author that there are possible weaknesses in the study through the following limitations; (1) this study lacks breadth for a graded comparison since it was limited to high school freshmen only. (2) The fact that some major areas of interest in the check list have as

few as two and three items may have influenced student response. Denver based its findings on percentile ranking, while this study and that of Lantagne in California were based on percentage ranking.

Regardless of limitations and apparent weakness in the study, the author is of the opinion that areas and items of greatest interest, as well as those of least interest as found in this study, are imperative to good curriculum planning.

III. RECOMMENDATIONS

In view of the findings of this study, the following recommendations are hereby submitted.

1. The fact that only one major area of health received less than 50 per cent favorable response indicates that the degree of interest shown by high school pupils on the freshman level is sufficient to warrant inclusion of health instruction in the curriculum.

2. The major areas of health interest in this study be developed into units for a course in health instruction in the state of Montana. Student interest is a splendid resource for curriculum development. The degree of interest expressed in these various health areas should influence the amount of emphasis to be placed upon each unit in the curriculum for health instruction.

3. The time allotted for each health unit in the course of study should be governed, in part, by the percentage

of pupil interest as determined by this study and/or any similar or subsequent study. Table III, on page 20, lists each area in rank order of the percentage of pupil interest that particular area received. Thus, one can see at a glance, the areas of greatest student interest.

4. The area of "personal appearance and personality development" should be given major consideration in the secondary school curriculum. In the returns from the survey made of 542 Montana students, 81.75 per cent indicated interest in this area. As noted previously, students were asked to write in items that were of interest to them but were not included in the check list. It will be noted in the list of student suggestions, shown in the appendix, page 78, a number of these suggestions dealt with the area "personal appearance and personality development." This bears out the fact that freshman boys and girls in Montana are interested in their appearance and the social aspect of as well developed personality. This fact is also supported by the study of health interests made in Denver, where this same area ranked first in student interest in the ninth grade.

5. Health classes need not be segregated in the ninth grade, since a common core of interest between boys and girls does exist. The similarity in the interests of boys and girls is shown by the small difference of about five per cent, in the items marked "like" on the check list.

6. In view of modern trends and changing times, a similar study should be made in five to ten years. Freshman

boys and girls verify this assumption, in designating the item "to learn how to protect yourself from the harmful effects of the atomic bomb" as being one of the ten leading items of interest.

7. A study of health interests should be extended to include sophomore, junior, and senior students in Montana high schools. Consideration should be given to pupil suggested items of interest in construction of the check list for the new survey.

8. All teachers on secondary level should explore health interests in the classroom as a partial basis for curriculum content. Due to departmentalization on the secondary level many teachers are subject-minded rather than pupil-minded. There is a growing tendency, however, to center attention on student needs, and the expectation that the teachers will be interested in the students as individuals.²

In conclusion, the author wishes to express the challenging words of the Educational Policies Commission:

An educated person knows the basic facts concerning health and disease. . . works to improve his own health and that of his dependents. . . and works to improve community health.³

²Report of the National Committee on School Health Policies formed by the National Conference for Cooperation in Health Education, op. cit., p. 16.

³Ibid., p. 7.

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APPENDIX

COPY OF LETTER OF PERMISSION

DENVER PUBLIC SCHOOLS
ADMINISTRATION BUILDING
414 FOURTEENTH STREET
DENVER 2, COLORADO
KENNETH E. OBERHOLTZER, SUPERINTENDENT

Department of Instruction
Louis H. Braun, Director
James A. Hall, Director

April 8, 1952

Mr. Lynn S. Stein
Sunburst, Montana

Dear Mr. Stein:

Your health interest check list is very interesting. The fact that it is to be used in one grade only has made it possible to phrase questions in ways that could not be done in the Denver study, where pupils from the fourth to twelfth grades were surveyed. I am sure there is no reason why you should not include questions that were used in our study.

You may be interested to know that two textbooks have been written, based upon the Denver Study of Health Interests. They are Building Health, a junior high school text, and Enjoying Health for senior high schools. These books use high interests as motivation and means of approach to health needs. They have just been published by J. B. Lippincott Company, Chicago.

I am enclosing a price list for Denver publications.

Sincerely,

Evelyn G. Jones
Special Teacher
Department of Instruction

ENC.

EGJ:vn

PILOT LETTER TO SCHOOL PRINCIPALS

Dear Sir:

A functional program that will help children to develop better health behavior is a necessity for today's schools. The Denver Public Schools are seeking to create just such a program. At a recent meeting in Helena, of medical men and educators, the main topic of concern was Health Education for our schools. A survey made in 1950 by Mrs. Jane Duffalo then Montana State Supervisor of Physical Education, Health, and Recreation, revealed some encouraging data, factually speaking, that your school has a Health Education class included in its curriculum.

I am doing graduate work in Physical Education during the summer sessions at Montana State University, and am interested in your Health Education class. I am doing some research on Health Interests Among Freshman Students in Second Class High Schools of Montana. The purpose of this study is to determine and evaluate the health interests of students for the purpose of making recommendations that may be used in a course of study for health education.

Your cooperation in permitting your freshmen to check a Health Interest List that will require about one class period of time, will be appreciated. Your cooperation in this study, which should be of concern to all of those who are interested in the communication of health knowledge to the boys and girls of our schools today, is needed and a summary of the results will be forwarded to you.

A stamped addressed envelope is enclosed for your convenience in replying.

Yours truly,

Lynn S. Stein

ENC.

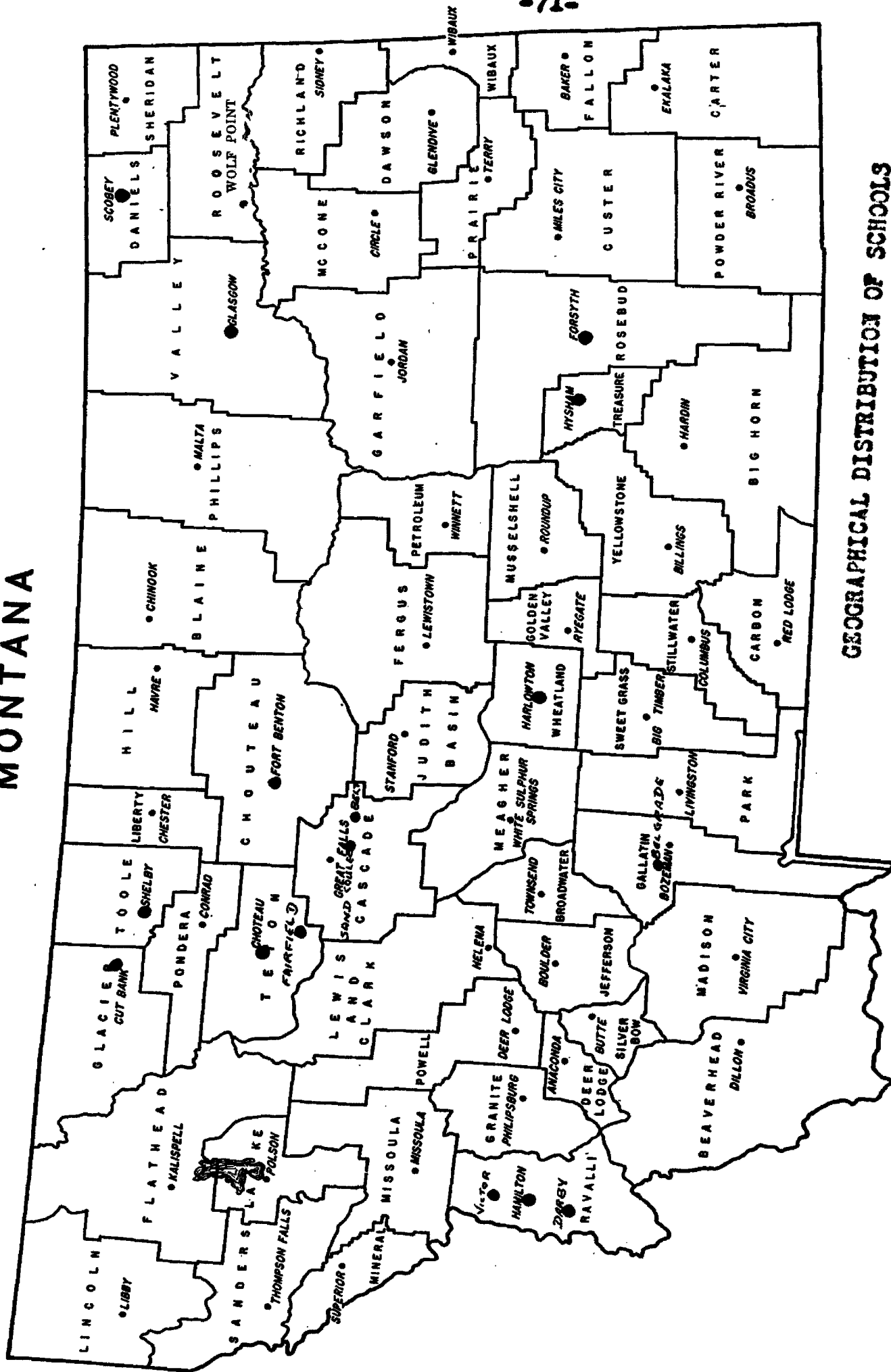
REQUEST FORM FOR COOPERATION AND INFORMATION

PLEASE FILL IN THE BLANKS BELOW AND INCLUDE BY RETURN MAIL
IN THE ENCLOSED STAMPED ADDRESSED ENVELOPE:

Our freshman enrollment is _____. It will
be most convenient for the freshman class to check the
health list on _____ 1952.
 (month) (day)

Signed _____
Superintendent or principal

MONTANA



GEOGRAPHICAL DISTRIBUTION OF SCHOOLS COOPERATING IN THIS SURVEY

Legend: • Cooperating schools

**INSTRUCTIONS FOR THE PERSON ADMINISTERING
THE SURVEY TO THE FRESHMEN**

1. Please notice that there is an extra copy for the instructor's examination. Designate it as the instructor's copy by writing the word INSTRUCTOR directly above the blank where sex is checked.
2. After all the students are seated and a copy of the check list is in their possession read aloud as follows:
 - a. PLEASE RELAX, THIS IS NOT A TEST. THEREFORE DO NOT WRITE YOUR NAMES ON THESE PAPERS.
 - b. IN THE NEXT TWO OR THREE MINUTES READ THAT PORTION AT THE TOP MARKED INTRODUCTION.
3. It is important that the second paragraph, marked DIRECTIONS TO THE STUDENTS, be read aloud to the students.
4. Read aloud the examples that now follow and answer any questions if the pupils are in doubt.
5. Say to the pupils, YOU ARE NOW READY TO BEGIN. PLEASE ANSWER EVERY ONE OF THE NUMBERS AS YOU BEGIN CHECKING BELOW.

THANK YOU.

HEALTH INTERESTS CHECK LIST

INTRODUCTION: Freshman boys and girls, like yourself, often wonder about certain changes that are taking place in their bodies, such as the appearance of hair on the body, growth, change of the voice, and many more such questions that should be interesting to talk about in a health class. Honest answers from you in checking the list below may help to determine the real need and interests that might possibly be recommended for a course in health education.

DIRECTIONS TO THE STUDENT: In the first blank below please PRINT the name of your high school, and if you are a boy, place a check after the word male, or if a girl, place a check after the word female. You will notice three columns on the left hand side with the following words at the top: LIKE, DISLIKE, AND INDIFFERENT. In order to know which column to check, you will notice that the first statement reads as follows:

1. To learn about the habit forming effects of marijuana cigarettes.

If you would like to learn about the habit forming effects of marijuana cigarettes, you would place a check () in the column marked LIKE.

If you would not like to know about the habit forming effects of marijuana cigarettes, you would place a check () in the column marked DISLIKE.

If you do not know whether or not you would like to know about the habit forming effects of marijuana cigarettes or if you do not know what is meant, you would check () the column marked INDIFFERENT.

BEGIN HERE:

High School.

Male _____ Female _____

LIKE
DISLIKE
INDIFFERENT

Please answer every one of the numbers and begin checking below. Notice that extra space is left after statements 6, 11, etc., so that you may add a similar statement of interest to you.

X	X	X	A. Narcotics, stimulants and habit forming substances.
			1. To learn about the habit forming effects of marijuana cigarettes
			2. To find out the harmful effects of smoking.
			3. To find out the effects of cola drinks on the body.
			4. To discuss the effects of alcohol on the control of the functions of the body.
			5. To learn how tea or coffee may affect you.
			6. To know the danger of taking sleeping pills without the advice of a doctor.
			others
X	X	X	B. Safety and first aid.
			7. To learn how to report accidents.
			8. To see a demonstration on how to give artificial breathing.
			9. To learn more about first aid.
			10. To know poison oak and ivy when you see them.
			11. To learn to use and shoot a gun properly.
			others
X	X	X	C. Family health
			12. To learn how to select a husband or wife.
			13. To discuss some of the problems of raising children.
			14. To know how boys' and girls' bodies change in the process of growing up.
			15. To learn what is the safest age to have a baby.
			others
X	X	X	D. Heredity and eugenics.
			16. To learn how babies are born.
			17. To find out how characteristics are inherited from our parents.
			others

L	D	I	NOTE: L for like, D for dislike, I for indifferent.
X	X	X	E. Mental health and disease.
			18. To have a discussion of some of the causes of insanity.
			19. To know some of the causes for committing suicide.
			20. To discuss ways of controlling your temper.
			others
X	X	X	F. Chronic and degenerating disorders as a result of disease.
			21. To study the effects of a mother's disease on the baby before it is born.
			22. To have a discussion on the causes of cancer.
			23. To read material on the spread of social disease during the time of war.
			others
X	X	X	G. Infection and protection from disease.
			24. To read how disease such as malaria and yellow fever were discovered and are controlled.
			25. To find out which diseases need to be quarantined.
			26. To hear a radio program on protecting oneself from infantile paralysis.
			27. To visit a dairy to see how milk is obtained and made ready for your use.
			28. To learn ways of preventing athlete's feet.
			others
X	X	X	H. Care of special organs.
			29. To study how sweets cause teeth to decay.
			30. To see a movie on the proper way to care for the teeth.
			31. To learn about the importance of good light in saving your eyesight.
			32. To read about glands and how their juices affect your body.
			others
X	X	X	I. Fatigue and rest.
			33. To learn ways of helping yourself relax before going to sleep.
			34. To try lying down for a period of ten minutes after each meal.
			others

L	D	I	NOTE: L for like, D for dislike, I for indifferent.
X	X	X	J. Keeping physically fit.
			35. To have a well-developed body.
			36. To find out what your height and weight should be.
			37. To learn the reason why you are cross when you are tired.
			others
X	X	X	K. Nutrition and health in the selection and composition of food.
			38. To know which foods to eat to be healthy.
			39. To learn the dangers of dieting without first consulting a doctor.
			40. To learn the importance of eating on time.
			others
X	X	X	L. Personal appearance and personality development.
			41. To wear clean clothes.
			42. To find out which colors look best on different people.
			43. To keep the body clean.
			44. To see some pictures of what is good posture.
			45. To find out ways of making yourself interesting to other people.
			46. To learn what a girl likes in a boy and what a boy likes in a girl.
			47. To learn why girls like to go with boys who are older than they are.
			48. To go to parties where there are both girls and boys.
			49. To learn how to develop confidence in yourself.
			50. To discuss how to be popular with your school-mates.
			others
X	X	X	M. Health and physical environment.
			51. To learn the activities boys and girls enjoy doing.
			52. To study the effects of sunburn on the body.
			53. To learn the safe speeds at which to drive.
			54. To learn how to make a bed with a patient in it.
			others

L	D	I	NOTE: L for like, D for dislike, I for indifferent.
X	X	X	N. The school health and sanitation program.
			55. To make a list of safety rules for your school.
			56. To learn how to test water for impurities.
			57. To measure your classroom to determine whether you have enough air and light.
			others
X	X	X	O. Health services and facilities for school and community.
			58. To visit a hospital and see an iron lung work.
			59. To have a doctor give you a thorough examination once a year.
			60. To have a janitor who keeps the school neat and clean.
			others
X	X	X	P. Occupational health.
			61. To find out how old I must be according to law before I can be hired for a job.
			62. To see a movie on how to avoid accidents at work.
			others
X	X	X	Q. Modern trends in health.
			63. To learn how to protect yourself from the harmful effects of the atomic bomb.
			64. To learn how to drive a car properly.
			65. To see a physiotherapist treat a victim of polio.
			66. To have a doctor tell you how some of the new drugs are used to improve health.
			others

ITEMS OF INTERESTS NOT USED IN THE CHECK
LIST BUT SUBMITTED BY STUDENTS

1. Narcotics, stimulants and habit-forming substances.
 - a. To learn to tell a dope addict.
 - b. To learn the effects of heroin.
 - c. To visit a hospital treating drug addicts.
 - d. How old to be before drinking and smoking.
2. Safety and first aid.
 - a. What to do in case of a broken leg.
 - b. Learn the new method of artificial breathing.
 - c. To learn the fundamentals of first aid.
 - d. The effects of swimming too soon after a meal.
 - e. To learn some things about home nursing.
 - f. What makes toes burn and peel in the summer?
 - g. Water safety.
 - h. To learn how to treat a rattle snake bite.
 - i. Learn how to apply splints.
 - j. Is it safe to swim in the Bitterroot River?
 - k. How to treat chilled feet properly.
3. Family health.
 - a. How to tell what sickness a small baby has.
4. Heredity and eugenics.
 - a. If a girl had a disease when she had a baby, would the baby inherit it?
 - b. To learn how epilepsy spreads from generation to generation.

5. Chronic and degenerating disorders as a result of disease.
 - a. To learn about syphilis and diarrhea.
6. Fatigue and rest.
 - a. To learn what too much rest will do to you.
7. Keeping physically fit.
 - a. To learn how to tell disorders of organs.
8. Nutrition and health in the selection and composition of food.
 - a. Effects from lack of eating on time.
 - b. Learn what happens when you eat too much of the same kind of food.
9. Personal appearance and personality development.
 - a. To obtain the right hair style suited to you.
 - b. The best time for getting married.
 - c. How to get along socially.
 - d. How a girl or boy knows when he meets the right mate.
 - e. How to neck on a date.
 - f. Why don't some girls get along with others if they have a nice personality?
 - g. To know why so many people consider marriage essential.
10. Health and physical environment.
 - a. To learn more about the lungs.
11. The school health and sanitation program.
 - a. Have school children keep their rooms clean.
 - b. Have some new seats for the class rooms.

12. Occupational health.

- a. Learn what kind of a job suits a girl or boy.**

13. Modern trends in health.

- a. To learn X-ray.**
- b. To know how some of the causes of insanity can be treated.**

Note: These items are listed in the exact wording of the student.